![Array Networks logo]

# Microsoft SCCM

## WAN Series WAN Optimization Controllers Accelerate Microsoft System Center Configuration Manager

## Background

Microsoft System Center Configuration Manager (SCCM) helps solve the critical management issues of the enterprise. It provides centralized, automated software provisioning, updating, and management of physical and virtual servers and desktops. Microsoft SCCM enhances IT managers' insight into, and control over, their infrastructures. By providing the primary way to manage desktops, IT organizations can ensure that systems comply with desired configuration states to improve systems' availability, security, and performance network-wide.

## Deploying and Managing Applications in a Distributed Enterprise

Configuration Manager provides a cohesive management infrastructure for delivering, updating, and inventorying locally installed and virtualized applications to desktops throughout a distributed enterprise. To achieve this, Microsoft SCCM efficiently delivers application packages for installation on remotely distributed desktops. These application files can be quite large (some can be over 1GB), so delivering these files over the WAN can prove to be a challenge, especially considering that the average change windows are normally just a few hours. In order to ensure predictable delivery, a server is set up at the branch location and the application files are replicated during off-hours and then downloaded and installed to each local client in a subsequent change window.

## Challenges

While Microsoft SCCM provides a centralized system to efficiently manage the application lifecycle, the network in a distributed environment can cause additional challenges that result in greater complexity and diminished efficiency. These challenges include the following:

- Remote users lose productivity while waiting for large application/file downloads over the WAN.

- Files and data can be redundantly transmitted. For example, a marketing group and a sales group work in a branch but use two different packages of Microsoft Office, requiring transmission of both large packages across the network despite a high percentage of common components.

- Inventory data (OS, applications, drivers, etc.) is highly redundant across many of the inventory reports but is still sent back across the WAN.

- Multiple server roles must be deployed and managed at the branch as part of the infrastructure, resulting in higher TCO and a complex delivery infrastructure.

## WAN Series for Application Acceleration

To meet the cost savings, performance, and scalability needs of distributed and virtualized application environments, Array's WAN Series WAN optimization controllers support Microsoft SCCM and Microsoft App-V, and delivery protocols including BITS, HTTPS, HTTP, SMB, CIFS, and RTP acceleration. WAN Series accelerates the application flow between centralized server farms and the branch by minimizing network traffic, decreasing the number of packet flows across the network, eliminating redundant transmissions, and reducing application chattiness. The results are dramatically reduced application distribution time and exceptional scalability with less complexity.

Effective application acceleration techniques, such as WAN Series's unique stream-based differencing, can identify and reduce application traffic to only the essential data objects (i.e., changes). By reducing the amount of data traffic sent via the WAN, application response time can be dramatically improved. With its application fluency, WAN Series understands how these elements are used and thus can make a more accurate identification of these data streams and enable industry-leading acceleration. Customers can consolidate Microsoft SCCM servers into centralized data centers without sacrificing performance for remote branch deployments.

vWAN virtual appliances can also be provisioned and monitored by Microsoft System Center Virtual Machine Manager (SCVMM) for centralized management of the entire virtualized infrastructure.

## Using WAN Series with Microsoft SCCM

WAN Series creates a virtualized distribution infrastructure as an extension of a centralized Microsoft SCCM solution. WAN Series software enables Microsoft SCCM traffic to be de-duplicated and compressed, reducing application distribution times to remote branches.

- Applications and updates become instantly available for on-demand delivery to branch offices while significantly reducing WAN delays.

- Packages with common components are recognized by WAN Series and their delivery is de-duplicated so that only the differences between files are transmitted over the network, saving time, bandwidth, and storage.

- Inventory data is accelerated and de-duplicated between the data center and branch sites, reducing the complexity and delay of administrative tasks.

- Microsoft SCCM deployments, which can be slowed by complex setups and decentralized server deployments, can be rapidly set up and ready for application deployment to branch offices in the shortest amount of time.

- Security patch updates are dramatically accelerated, reducing the time to apply these critical updates.
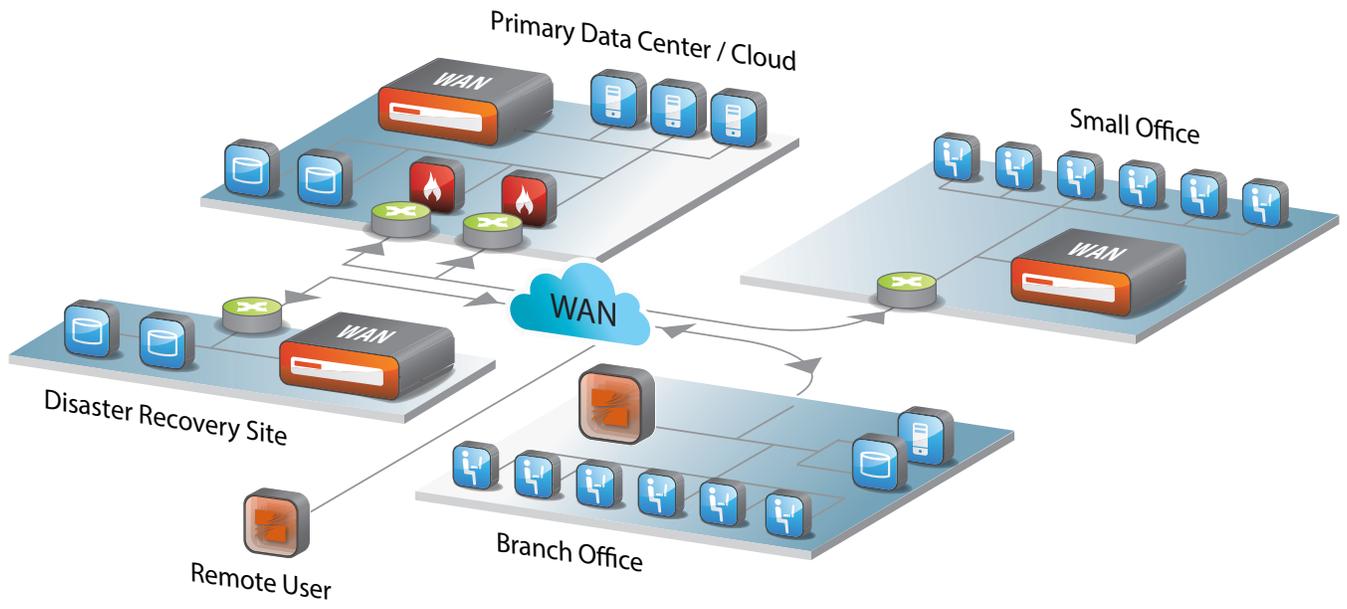
## WAN Series Benefits

> Reduce application distribution times to remote branches by up to 95%*

> Speed application deployment to branch offices

> Securely distribute application and security updates in less time

> Reduce the cost and complexity of managing multiple branch deployments

> Maintains worker productivity during large application/file downloads

> Eliminates duplicate data, reducing overall bandwidth requirements and maintaining WAN performance

## vWAN Benefits

> Certified for VMware ESXi, Hyper-V, KVM, and Windows Server 2008R2

> Uses minimal system resources and can reside with other applications

> Can be provisioned and monitored by Microsoft System Center Virtual Machine Manager (SCVMM) for centralized management

*Acceleration results may vary based upon traffic type, network contention and network configuration.

Primary Data Center / Cloud

Small Office

WAN

WAN

Disaster Recovery Site

WAN

Remote User

Branch Office