

Gateway Managed Services Agent-Based or Agentless?

So you're serious about managed services and are ready to implement a remote management and monitoring (RMM) solution.

Some RMM products are agent-based, others agentless, and some offer a hybrid solution. But what's the difference?

A Brief History of Agents

Agent-based architectures were born in the 20th century, back when people believed that everything you needed to manage should be on a single box.

The limitations of building management systems this way became evident when client-server computing emerged in the 1980s and web computing in the 1990s. Agent-based systems became bogged down by the inefficiencies of having to handle both ends of distributed applications.

In the 21st century, technology is increasingly network-based and virtualised, with a focus on web services, software-as-a-service (SaaS) and cloud computing—and agent-based architectures are rapidly becoming obsolete.

The simple fact is that all modern operating systems can be effectively managed—remotely and agentlessly—using well-defined industry standards. All of Windows®, Linux®, and all major applications and devices can be managed through these standards using Managed Workplace.

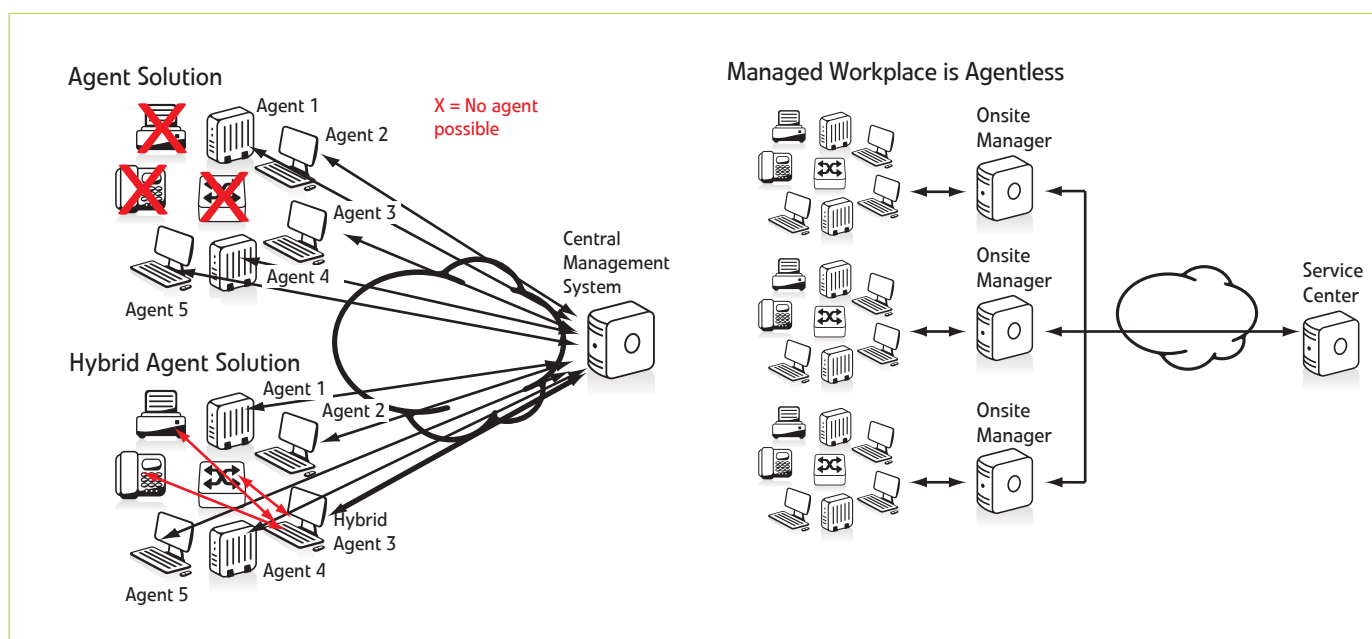
"The agentless technology of Managed Workplace provides critical insight at all levels into our customer networks.

Specifically, it allows us to effectively manage both on-site networks and their counterparts located on the CSG Cloud Computing Platform (CSG CCP).

This technology is essential to our ability to manage and monitor virtual environments effectively—and therefore to offer secure, first class services to our customers."

Scott Spiro
CEO

Computer Solutions Group



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Agents Can't See Everything

You know that the world is going virtual with the growing popularity of virtual machines, virtual networks, virtual storage, SaaS, e-commerce and use of external websites for business—and you can safely assume that customers will expect you to be able to manage all these environments.

Have you seen the movie, *The Matrix*? It makes for an interesting analogy here.

Agents are essentially locked inside the Matrix, living inside the reality created by virtualised operating systems (OS), virtualised storage, and virtualised LANs. Managed Workplace, however, is like Neo—able to live outside the Matrix and see the reality of what is really going on—while still having the ability to enter the Matrix at any time to see what things look like inside the virtual world as well.

Here's a practical example. An agent locked inside a virtual machine will see that the OS is allocating 70% of CPU to a critical application like Microsoft Exchange®. As far as that agent can tell, life is good for that application.

Our Onsite Manager, however, can see that the hypervisor (like VMware) that is running the Onsite Manager is allocating only 20% of the real CPU to the virtual machine because of other virtual machines, or perhaps there's a problem on the real box. So the real CPU that the critical application is actually getting is only 20% x 70%, or 14% of the real CPU.

An agent would be blind to this problem because it lives inside the virtual machine—it's part of the Matrix! Managed Workplace, however, can see it, alert on it, and allow you to configure rapid remedial actions should this situation arise.

When Agents Meet a New OS

Unfortunately, agents always have to be ported and de-bugged every time a new operating system is released—all desktop editions, all server editions.

Because porting takes time, agents often lag in providing support for new operating systems by several months. One of our agent-based competitors took over six months to support Windows Server 2008, for example, while solution providers using Managed Workplace were able to monitor and manage this strategic platform on the same day that it was launched.

What About Hybrids?

Agents can only manage the systems that they are installed on, which means they can't monitor common network elements like Cisco routers, VMware, HyperV or VoIP servers.

Some products compensate for these fundamental shortcomings by using hybrid agents or agentless probes, but these rely on static configurations that frequently break when changes in the environment occur.

You end up with a non-scalable solution that is difficult and costly to set up and maintain. An agentless system is set up once, and automatically adapts to changing configurations.

Hidden Costs

Remember that agents have to be installed on every single system you'll manage. How long does each single deployment take? Ten minutes? How many devices? This will only get more tedious as you manage more systems and discover that you must redeploy to keep up with changing technology.

Any software upgrade can break agents and require redeployment. XP SP2, XP to Vista upgrade, and Vista SP1 broke most competitors' agents, for example, while our Partners were able to manage all of these on the day of launch.

More costs pile up when you have to purchase other tools to manage the things that agents can't, like VoIP, virtual machines, and SaaS.

Some agent-based platforms come with remote access and backup tools, but these often reduce your choices and increase your costs by restricting you to their chosen solutions, instead of letting you pick what is appropriate for your business and