

Managing Software Distribution on a Global Scale

MORE SUCCESS IN LESS TIME

As enterprises become more global and embrace digital transformation, the distribution of software patches and continuous Windows 10 updates has become a significant challenge. With the rise of Windows-as-a-Service (WaaS) and its frequent, bandwidth-intensive updates, the traditional hardware-led approach for updating endpoints across a corporate network is no longer sufficient and simply will not scale.

Ciena is a leading global supplier of networking systems, services, and software. Ciena had already deployed the Kollective platform for delivery of all live and on-demand video across its global base of employees. Before initiating a Windows 10 migration for all employees, Ciena wanted to make changes to the way updates were deployed to keep the internal network at peak performance for core business operations.

Ciena chose to leverage the same Kollective software-defined networking platform it was using for video delivery to solve its software distribution challenges by deploying Kollective for ConfigMgr. By taking advantage of the peering efficiency of the Kollective platform, Ciena is able to deliver full operating system upgrades, line of business application updates, and monthly software patches to the very edge of the network while significantly accelerating the speed to patch, reducing strain on the network, eliminating distribution point hardware, and enabling administrators charged with deploying these updates to “set it and forget it”.

THE BUSINESS CHALLENGE

REMOTE OFFICES CREATE SOFTWARE DISTRIBUTION HEADACHES

- Operating system upgrades and software updates were difficult to deliver to 65+ global offices
- Hardware-based distribution points acted as choke points and could not serve 33% of the global offices
- The paradigm change introduced with monthly WaaS updates overwhelmed the traditional process that relied on hardware distribution points
- A complex environment with the need to simultaneously manage updates across 6-7 different Windows 10 versions compounded the software distribution challenges

60%

INCREASE IN DEPLOYMENT SPEEDS



Experience. Outcomes.

HQ:

Maryland, USA

CEO:

Gary Smith

Employees:


7,000+

Global locations:

65+ offices in 35+ Countries

“...one of the first things we’ve ever rolled out where no one had any complaints or even knew it happened. Security people don’t see it. Network people don’t see it. The users don’t see it. It’s like magic.”

- James Schonberg
Manager, Client Engineering - IT
Infrastructure



With more than 65 offices and 1,500 customers around the world, Ciena understands the importance of building intelligent, adaptive networks – after all, it’s core business is supplying networking equipment to the world’s largest telecommunications providers.

While transitioning end users to Windows 10 across the enterprise, the company found itself facing distribution challenges all too familiar in IT. The 7,000 end user endpoints spread across the globe were served by 18 distribution points, all clustered near Ciena’s major offices.

Ciena recognized its traditional method of updating endpoints via these hardware-based distribution points was driving an increase in administrative, maintenance, and monitoring costs. It was difficult to scale without adding more distribution points in difficult to maintain global regions. The advent of continuous large monthly and semi-annual Windows 10 updates along with the need to maintain several versions of Windows 10 across its install base only compounded the challenges with delivering updates to remote offices.

Without dedicated distribution points for each of its 65 offices, the IT infrastructure and desktop management team found a slower and lower compliancy in its remote locations. Windows 10 includes two major semi-annual feature releases that have been averaging over 4GB in size. In addition, Windows 10 requires monthly Quality Update releases over 1.0 GB in size to maintain security hygiene. Ciena knew the increased cadence would require more administrative time and resources to keep all its endpoints continuously up-to-date and secure while still struggling to deliver a consistent and positive end user experience to every global employee.

In addition to handling the increased cadence, the increased file sizes meant Ciena was looking at a huge increase in network load. At one point, Ciena was sending more than 30GB of data to each distribution point containing patches for Windows 7, Windows 10, and its servers. “Just populating remote distribution points could take 10 hours,” said Lanny Underhill, Lead Desktop Services Management at Ciena. “Combine all three of those going through, and they would essentially fight between themselves as to which was going to get there first.” The distribution points acted as choke points preventing employees from being able to update their devices in a timely manner while leaving endpoints exposed and vulnerable to security breaches.

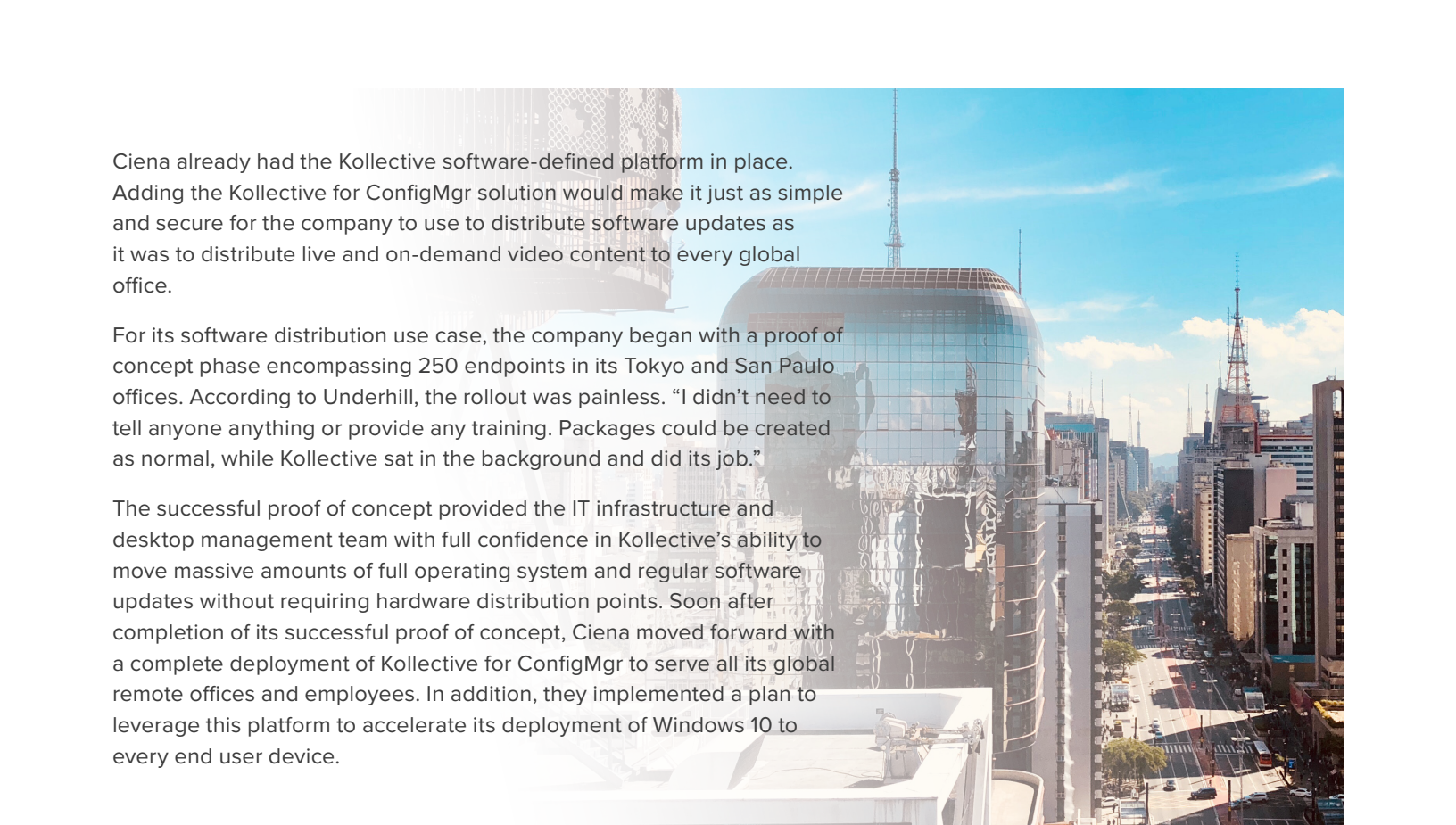
Underhill described the feeling of updating remote offices from distribution points as “using two cans and a string.”

For one remote office in South America, the company had to download all the operating system and software patch updates onto a PC at headquarters and ship it to the remote office to act as a distribution point. This process was expensive and slow. Delays were created while dealing with a range of issues, including local customs officials. Setting up a brand new global office was also very challenging because of hardware constraints.

THE SOLUTION

KOLLECTIVE FOR CONFIGMGR SIMPLIFIES SOFTWARE DISTRIBUTION

- Cloud-based software network overlay facilitates adaptive, intelligent, and fully-distributed content delivery
- Automatic creation of mesh peering grid means no manual configuration required
- Increases end point security through regular and timely updates of important patches
- Adapts dynamically to network and deployment requirements with no need to define or manage boundary groups or subnets
- Enables near limitless scalability while self-optimizing performance



Ciena already had the Kollektive software-defined platform in place. Adding the Kollektive for ConfigMgr solution would make it just as simple and secure for the company to use to distribute software updates as it was to distribute live and on-demand video content to every global office.

For its software distribution use case, the company began with a proof of concept phase encompassing 250 endpoints in its Tokyo and San Paulo offices. According to Underhill, the rollout was painless. “I didn’t need to tell anyone anything or provide any training. Packages could be created as normal, while Kollektive sat in the background and did its job.”

The successful proof of concept provided the IT infrastructure and desktop management team with full confidence in Kollektive’s ability to move massive amounts of full operating system and regular software updates without requiring hardware distribution points. Soon after completion of its successful proof of concept, Ciena moved forward with a complete deployment of Kollektive for ConfigMgr to serve all its global remote offices and employees. In addition, they implemented a plan to leverage this platform to accelerate its deployment of Windows 10 to every end user device.

25% LESS TIME SPENT ON
DESKTOP MANAGEMENT

THE IMPACT

HOW KOLLEKTIVE FOR CONFIGMGR TRANSFORMED SOFTWARE DISTRIBUTION FOR CIENA

- Improves ability to quickly deliver updates to more than 7,000 endpoints
- Seamlessly handles the complexity associated with managing multiple operating system and patch versions across its global footprint of employees
- Keeps 65+ offices in 35+ countries more secure with endpoints patched on a regular and timely basis
- Eliminates negative impact on employees of slow-to-download and install updates while improving end user experience and productivity
- Enables desktop management team to spend more time on important digital transformation projects by reducing time required for administration, maintenance, and monitoring of updates
- Provides insight via Kollektive IQ into the bandwidth savings realized while distributing updates
- Allows for decommissioning and redeployment of expensive to maintain distribution points

Ciena is using Kollektive for ConfigMgr to transform the way it approaches software distribution. Ciena is now able to significantly increase the speed at which it deploys crucial security updates by as much as 60%. The Kollektive platform seamlessly delivers a complex array of operating system and patch updates contributing to a better end user experience while reducing the hand holding required by the IT infrastructure and desktop management team.

Kollektive for ConfigMgr has also allowed Ciena to avoid the expense and hassle of installing and maintaining new distribution points for its remote and fast-growing offices across Asia and South America. It removed distribution points as a bottleneck and single point of failure. For a recently opened Ciena office in Asia, the desktop management team estimates it took their team 25% less time to get the office up and running using Kollektive.

Meanwhile, Ciena’s employees no longer struggle to download and install patches. “We used to have a lot of people stuck on downloading patches,” said James Schonberg, Manager, Client Engineering - IT Infrastructure at Ciena. “Those calls have virtually disappeared.” As a result, his team now saves an extra half a day a week per person during patch week. That time is now used to focus on other critical projects, while end users can work without interruption and the frustration of tech support.

Ciena uses the Kollektive Analytics platform to monitor the successful delivery of its software patch updates to end user devices. This industry-leading tool provides the company with insight into the bandwidth savings provided by the platform while deploying Windows 10 and other software updates. This bandwidth savings results in the opportunity to reduce the overall cost of connectivity, particularly for the company's most remote offices where monthly recurring charges for bandwidth is expensive.

The impact of Kollektive delivering a "set it and forget it" software distribution platform will enable the IT infrastructure and desktop management team to decommission and redeploy its expensive and difficult to maintain distribution points around the globe. This will result in significant annual savings to enable more aggressive investment into other transformation initiatives.

"With Kollektive for ConfigMgr, we've been able to focus more on other projects instead of having to constantly stop and investigate if there's an issue why someone can't get an update. It's easily freed up an extra half a day a week per person during patch week."

– Lanny Underhill, Lead Desktop Services Management



LEARN HOW KOLLEKTIVE FOR CONFIGMGR CAN ACCELERATE YOUR SOFTWARE DELIVERY AND UPDATE PROCESS.

CONNECT WITH AN EXPERT



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