



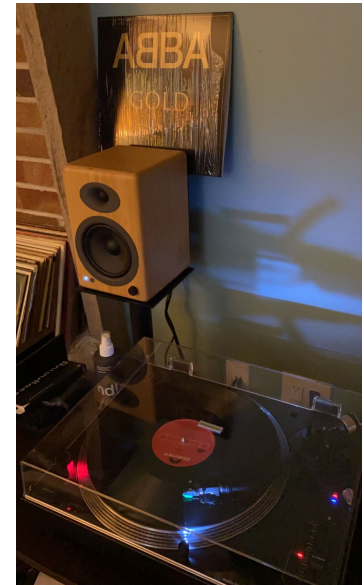
Microsoft Connected Cache

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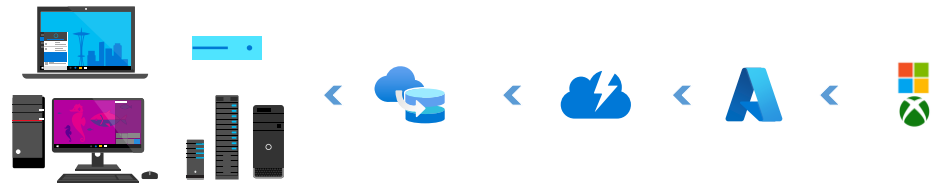
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Microsoft Content Delivery

- Content Delivery Team optimizes delivery through on-device and cloud services
- Microsoft works with a portfolio of CDNs to optimize content delivery globally



- 1.4 Billion active Windows 10 and 11 devices - downloading content daily
- Delivery Optimization platform – Over 1 Trillion operations / month (download and P2P sessions)



Microsoft Connected Cache

- Microsoft's free **software-based**, cloud-managed in-network cache solution
- Available for use by Internet Service Providers, *Internet Exchanges*, and Transit Providers
- Relies on Microsoft's Delivery Optimization Platform
- Caches static content - Windows, Office, Xbox Games*, and more content

*Games on PC currently supported, Xbox Console supported soon...

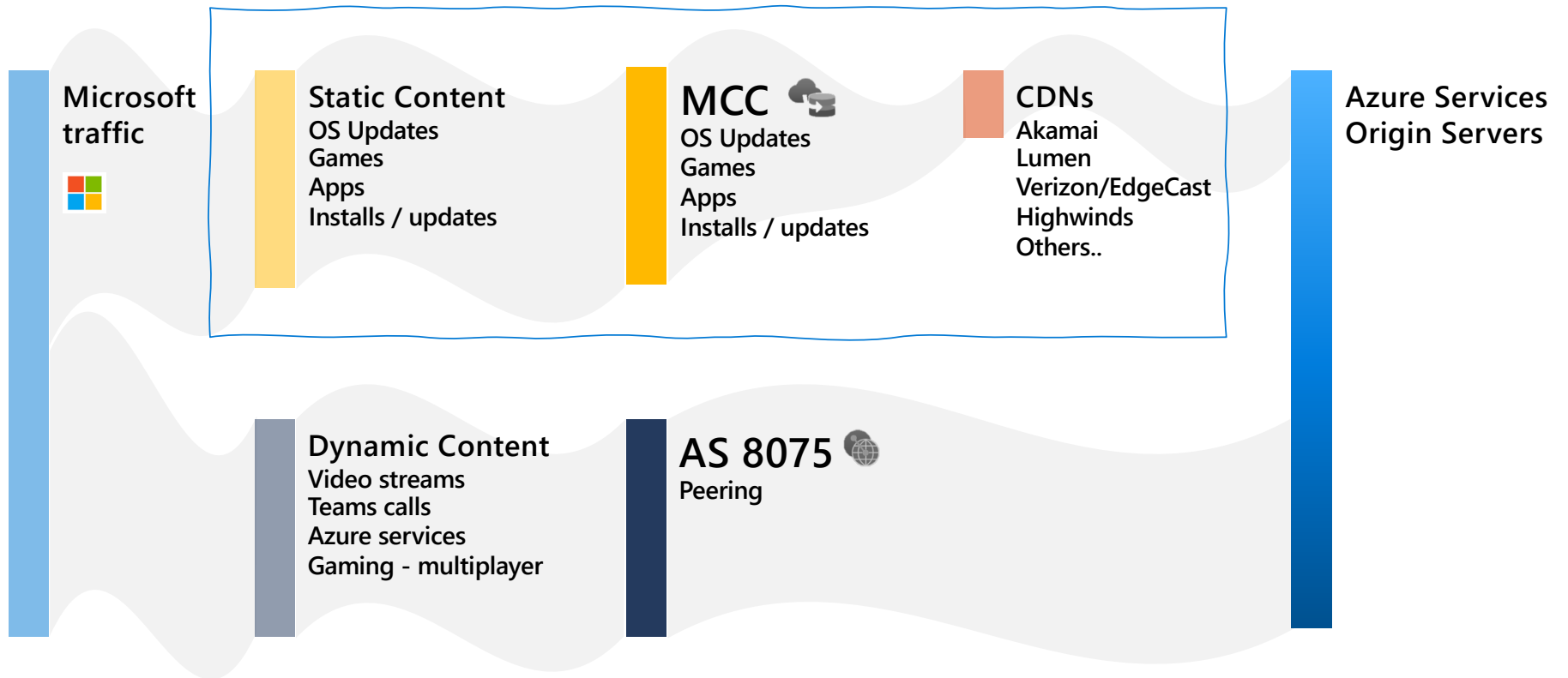


Benefits of Microsoft Connected Cache

- Reduces Load On Backbone/Transit Costs - 98%+ Cache hit/ratio
- Requires no content management – Transparent, intelligent cache, pull model, caches only what is consumed by devices on your network
- Offers flexible deployment to as many bare-metal servers or VMs as needed
- Improves Download Experience - Brings the source closer to the end user (1.5 X faster download speeds & higher download success rate)

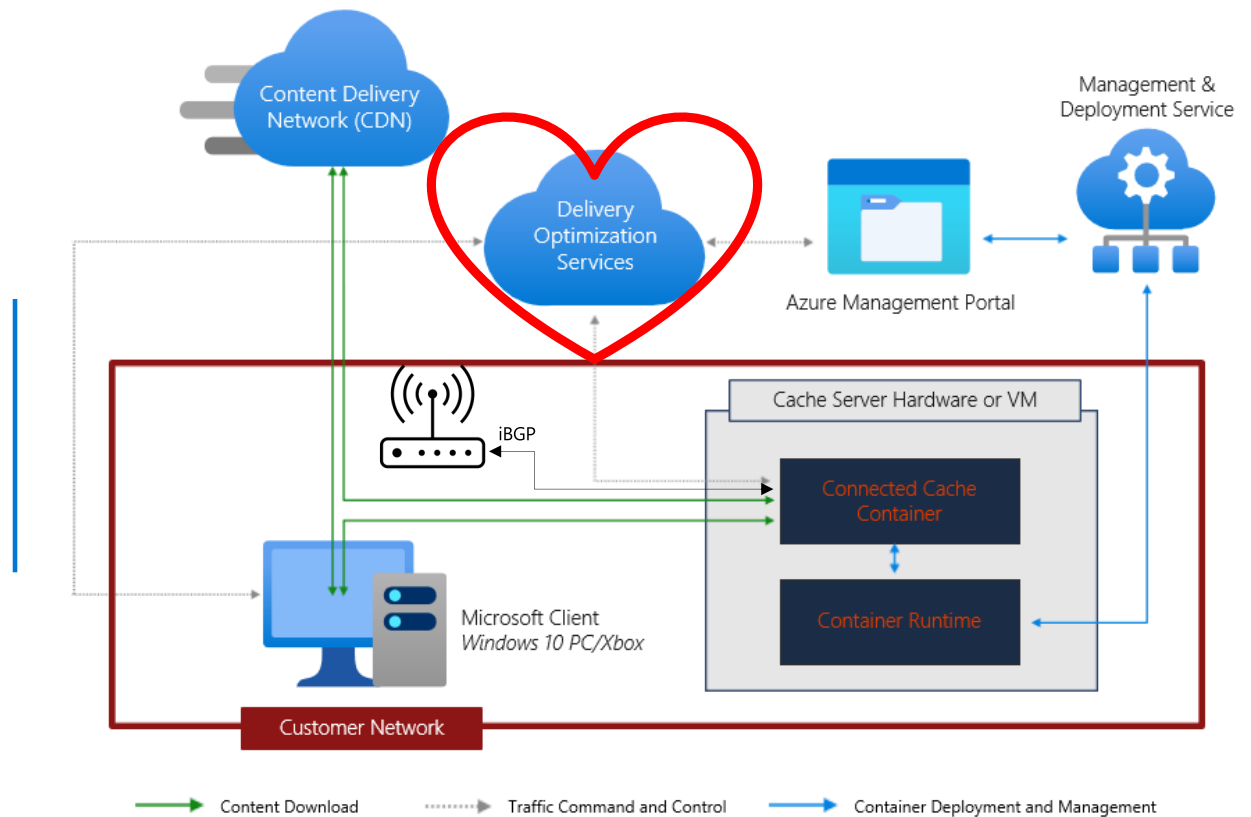


Peering vs Cache Content Traffic





Microsoft Connected Cache At a Glance





Cache Server Requirements

Microsoft Connect Cache Machine Class	Scenario	Traffic Range	VM/Hardware Recommendation
Edge	For smaller ISPs or remote sites part of a larger network.	< 5 Gbps Peak	VM ✓ Up to 8 Cores ✓ Up to 16 GB Memory ✓ 1 500 GB SSD
Metro POP	For ISPs, IXs, or Transit Providers serving a moderate amount of traffic in a network that may require one of more cache nodes.	5 - 20 Gbps Peak	VM or Hardware ✓ 16 Cores ¹ ✓ 32 GB Memory ✓ 2 - 3 500 GB SSDs
Datacenter	For ISPs, IXs, or Transit Providers serving a large amount traffic daily and may require deployment of multiple cache nodes.	20 - 40 Gbps Peak	Hardware (see sample spec below) ✓ 32 or More Cores ¹ ✓ 64 or more GB Memory ✓ 4 - 6 500 - 1 TB SSDs ²

¹ Requires systems (chipset, CPU, motherboard) with PCIe version 3 or higher

² Drive speeds are important and to achieve higher egress we recommend SSD NVMe in m.2 PCIe slot (version 4 or higher)



Connected Cache Node Up and Running In About 1 Hour

1. Server ready w/Ubuntu 20.04 (22.04 coming soon..), RHEL 8/9
2. Create Cache Resource (Account) – Management Portal and Signup verification
3. Create a node in the management portal
4. Provision the server with a script
5. Configure basics for node in portal
 - Server IP
 - Cache drives and sizes
 - Max allowable Egress
6. Configure routing in portal
 - BGP
 - Manual prefixes
7. iBGP peer with cache node from router/route server



Management Portal

Home > 12.9.MCCPublic | Cache Nodes >

test Cache Node Configuration

Microsoft Connected Cache

[Download provisioning package](#) [Save](#)

To get a cache node running you will need to:

Configure the basics, cache storage settings and routing information.

Run a provisioning script on your server that will connect the server to Microsoft services

Home > 12.9.MCCPublic

12.9.MCCPublic | Cache Nodes

Connected Cache for ISP

Search

« [+ Create Cache Node](#) [Refresh](#) [Delete](#)

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Cache Node Management

Cache Nodes

Verify Operator

Account Info

Monitoring

Metrics

[Learn more](#)

<input type="checkbox"/>	Cache Node Name ↑↓	Status ↑↓	Enabled/Disabled ↑↓	Server IP ↑↓	IP Space ↑↓
<input type="checkbox"/>	test	Not Configured	Enabled	Not Configured	Not Configured
<input type="checkbox"/>	andyriv-x1	Not Configured	Enabled	192.168.1.109	1 IPs
<input type="checkbox"/>	MCC-RHEL	Not Configured	Enabled	74.235.129.159	Not Configured

ASN

Enter ASN ex:12345

IP address

Enter Neighbor IpAddress

BGP routes received ⓘ

Routes never received

Last received BGP timestamp ⓘ

Download BGP Routes

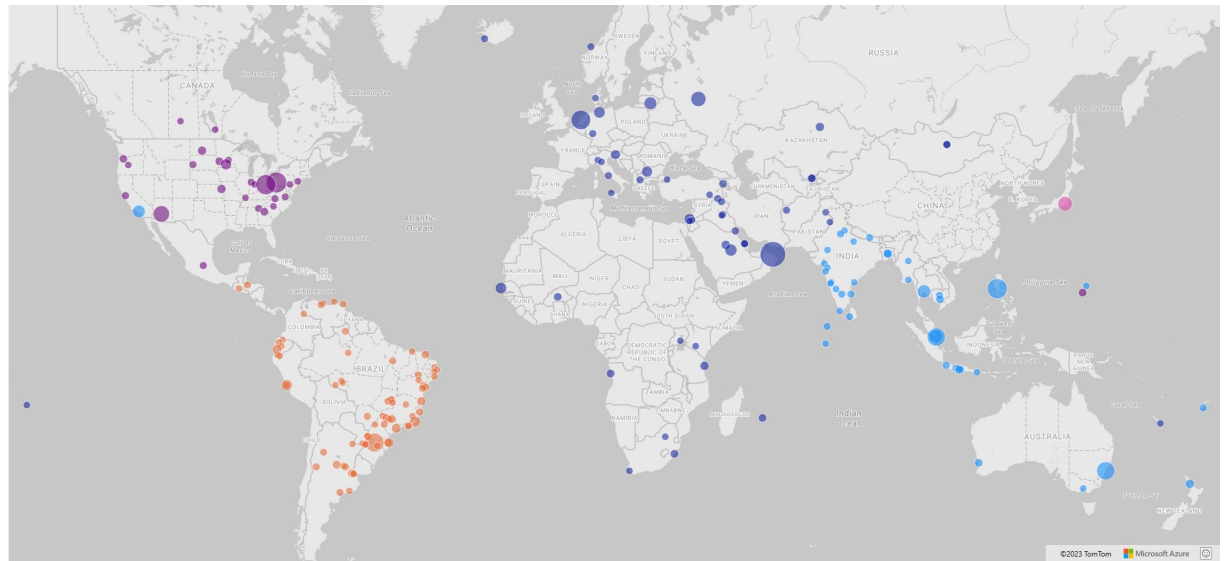
Download JSON

Ip Space ⓘ

0



70+ Countries
200+ Operators
300+ Nodes

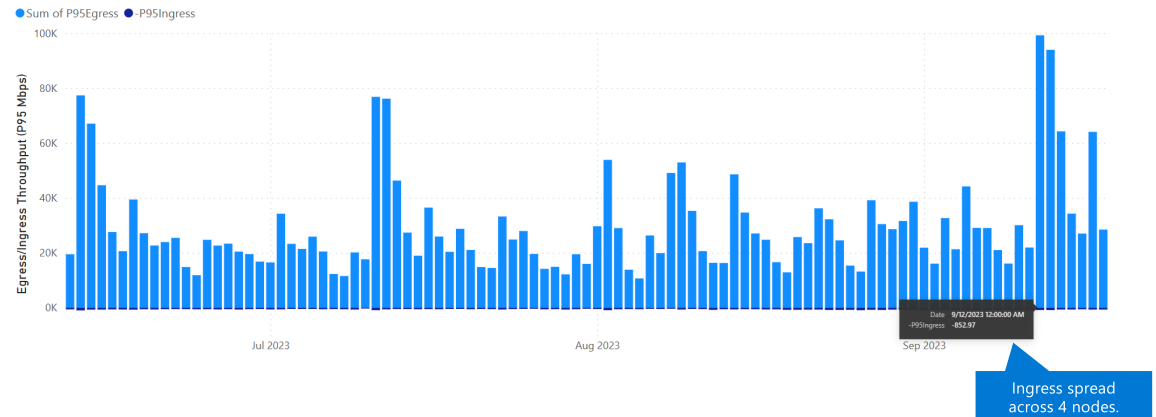




Sample Caching Data

Thailand Network Service Provider

- 4 Dell PowerEdge R330 – Ubuntu 20.04
 - 2 x Intel(R) Xeon(R) CPU E5-2630 v3 @ 2.40GHz , total 32core
 - 48GB, Micron Technology 18ASF1G72PDZ-2G1A1, Speed: 2133 MT/s
 - 4 - Transcend SSD230s 1TB SATA Drives
 - 40G Intel XL710-QDA2
- ~1M IPv4 IPs
- Microsoft Connected Cache service load-balances
- Results
 - 99% cache hit across three nodes
 - Peak egress mid-high 30s





Learn more at:
<https://aka.ms/mccisp>



Questions?

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