



Microsoft Lync Server 2013 Edge Servers

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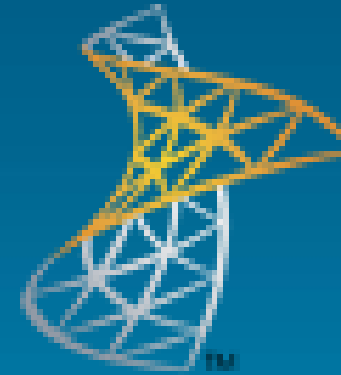
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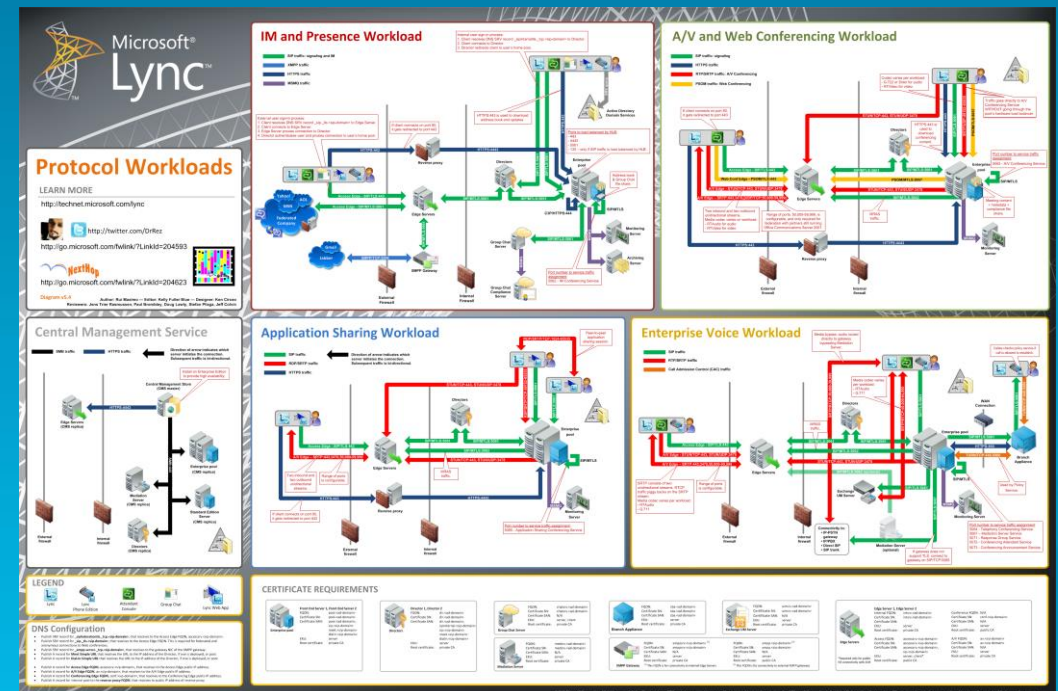
Consultor Senior IT - Servertech

Educarse e informarse

- ▶ Tech Center home page
- ▶ Technical Library
- ▶ First Run videos
- ▶ Visio Protocol Flow poster
- ▶ Lync Powershell blog
- ▶ Next Hop blog



Microsoft®
Lync™



Lync Server Edge escenarios

▶ Acceso Usuarios Externos

- ▶ Los clientes Lync pueden conectarse transparentemente al Lync Server sobre Internet

▶ PIC

- ▶ Conectando con IM publicos IM

▶ Federación

- ▶ Federación con otras Empresas
- ▶ IM&P solamente, o
- ▶ Todas las modalidades de A/V and compartir Aplicaciones

Escenarios Edge soportados

Escenario	Usuario Remoto	Federado	Anonimo	PIC/ Interop
Presence	✓	✓		✓
IM Peer-to-Peer	✓	✓		✓
IM conferencing	✓	✓	✓	
Collaboration	✓	✓	✓	
A/V Peer-to-Peer	✓	✓		✓ (Latest WLM*)
A/V Conferencing	✓	✓	✓	
File Transfer	✓	✓		

* Windows Live Messenger



Edge Topologies

Edge con dirección IP Única

edge.contoso.com
131.107.155.10

External

Edge Server

Internal

edge-int.contoso.com
172.25.33.10

SIP: 5061
Web Conf: 444
A/V Conf: 443, 3478

SIP: 5061
Web Conf: 8057
A/V Conf: 443, 3478

Select the features of this Edge pool.

☒ Use a single FQDN & IP Address.

Choose this option if you would like the SIP Access, Web Conferencing, and A/V Edge services to share a single FQDN and IP address. Note: The combination of IP address and port number for each Edge service must be unique.

Edge con multiples direcciones IP

access.contoso.com

131.107.155.10 **443, 5061**

External SIP

webcon.contoso.com

131.107.155.20 **443**

External Web Conf

av.contoso.com

131.107.155.30 **443, 3478**

External AV

Edge Server

edge-int.contoso.com

172.25.33.10

Internal

SIP: 5061

Web Conf: 8057

A/V Conf: 443, 3478

Edge usando direcciones IP sobre NAT

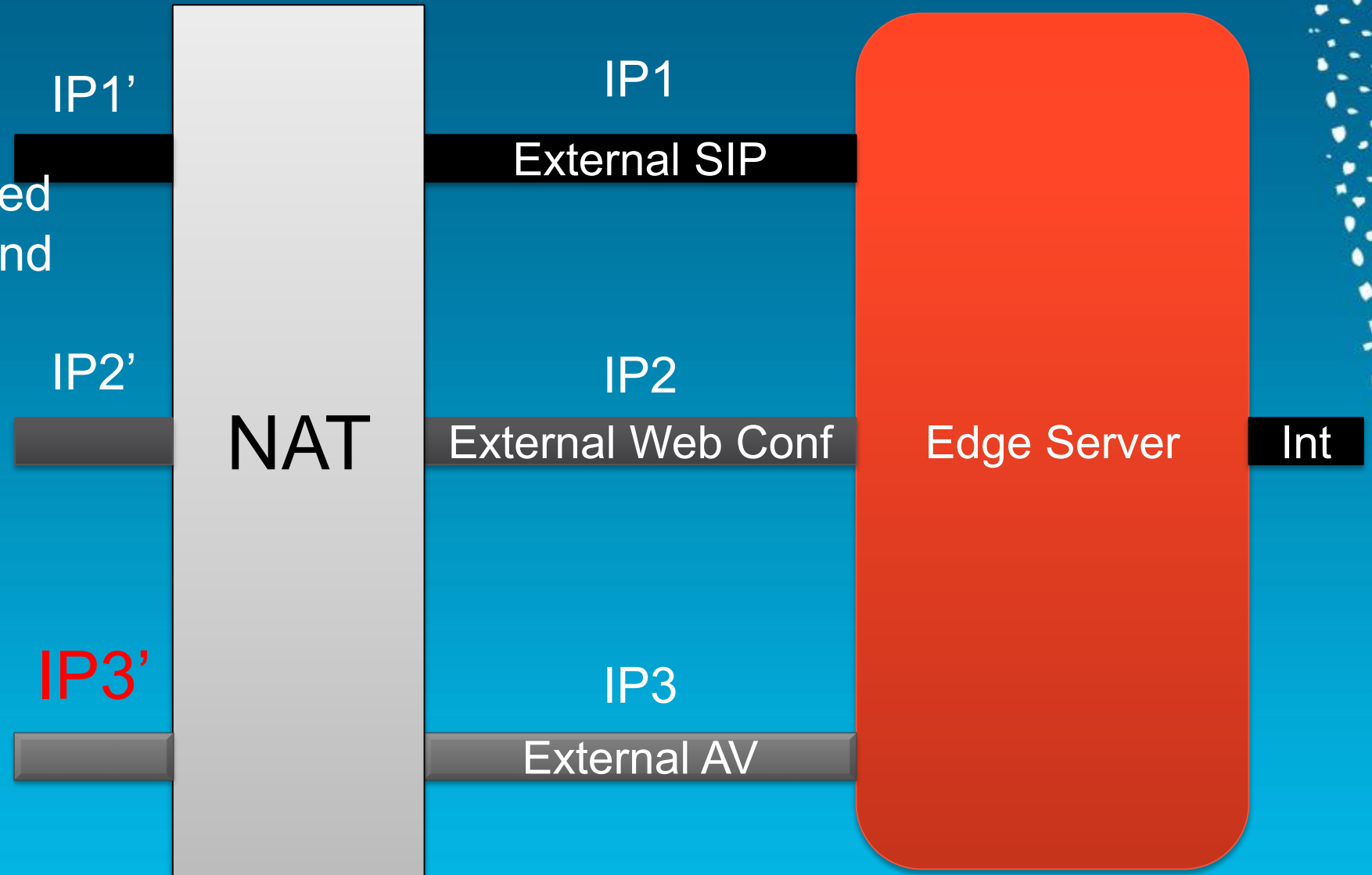
Public IP space

Lync Server does not need to know translated SIP and Web Conf IP

Client

Clients connect to IP for A/V traffic

Translated AV IP must be configured in Lync Server



DNS Load Balanced Edge usando NAT

Public IP space

DNS A records

access.contoso.com IP1' and IP4'

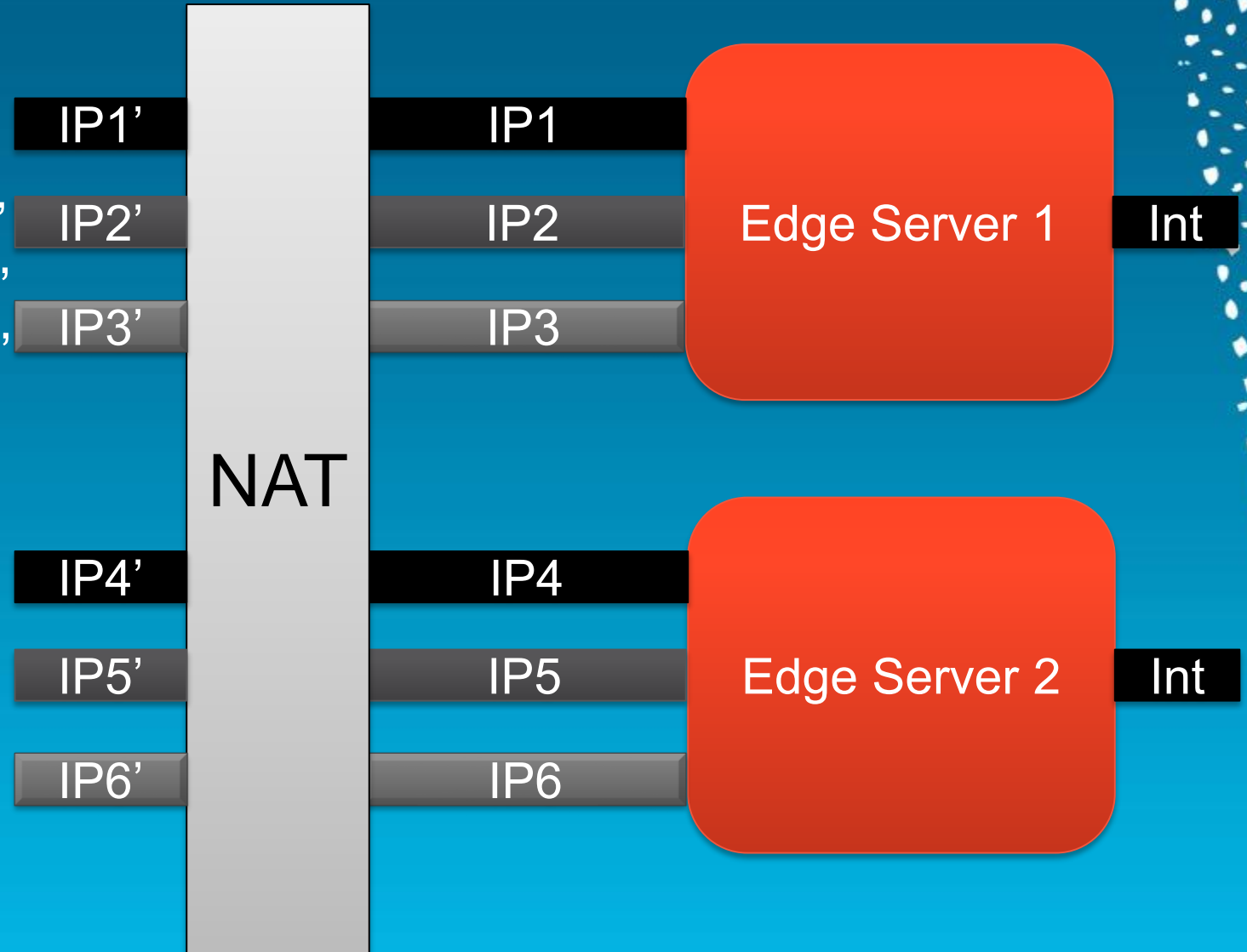
webcon.contoso.com IP2' and IP5'

av.contoso.com IP3' and IP6'

Translated AV IP addresses must be configured in Lync Server individually

IP3 to IP3'

IP6 to IP6'



Hardware Load Balanced Edge

Public IP space

DNS A records

access.contoso.com VIP1

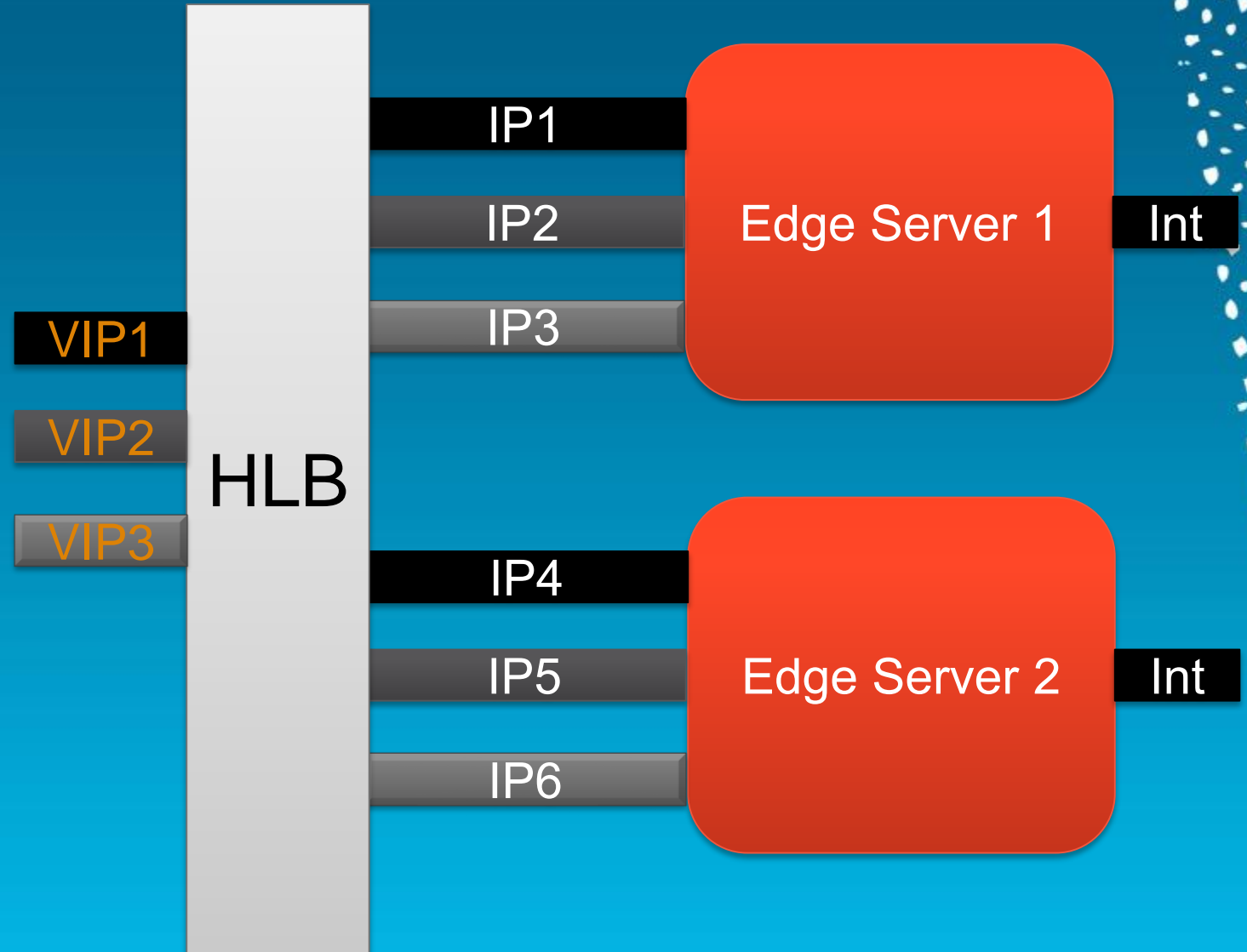
webcon.contoso.com VIP2

av.contoso.com VIP3

AV client connections are initiated over the VIP.

Subsequent client AV traffic (UDP) connect directly to Edge.
TCP traffic continues to use VIP.

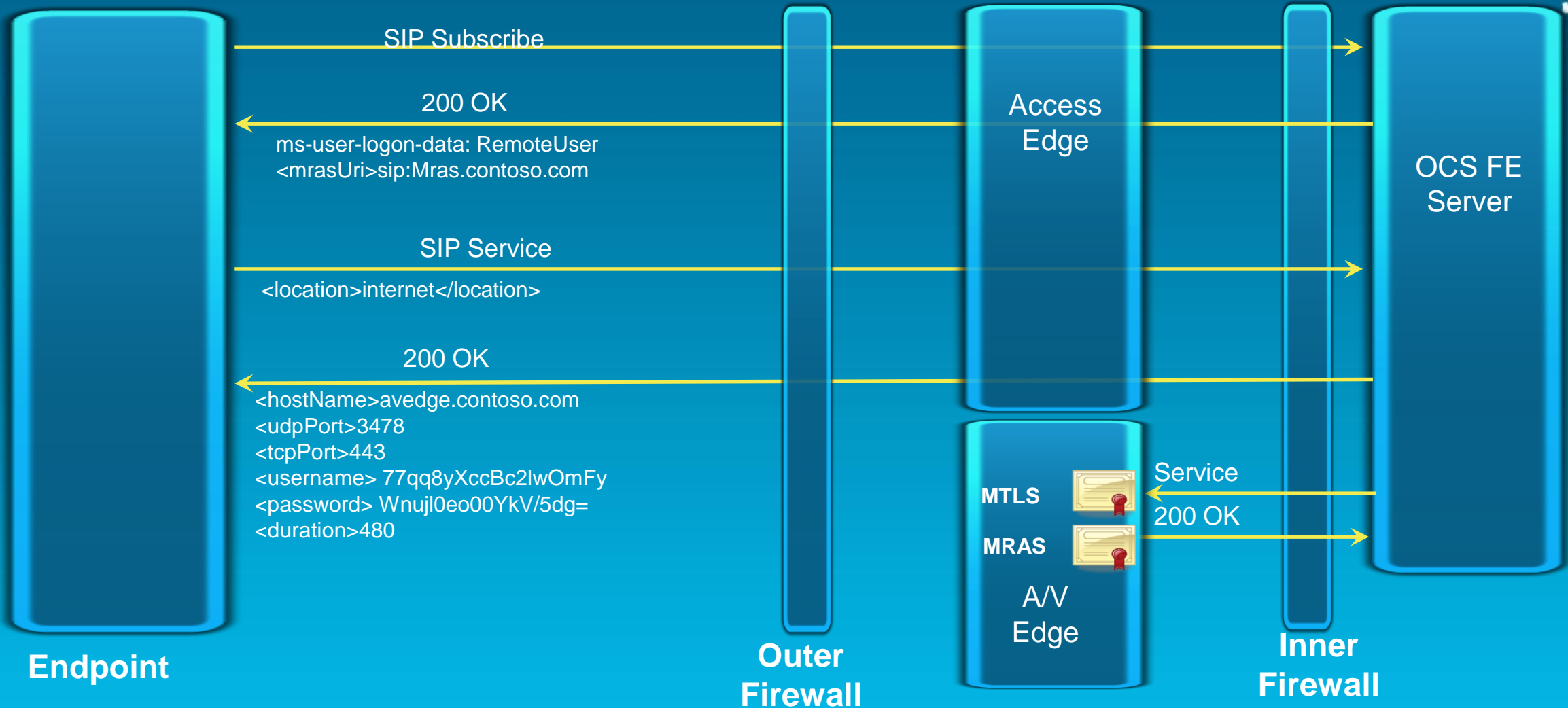
NAT and HLB is not possible



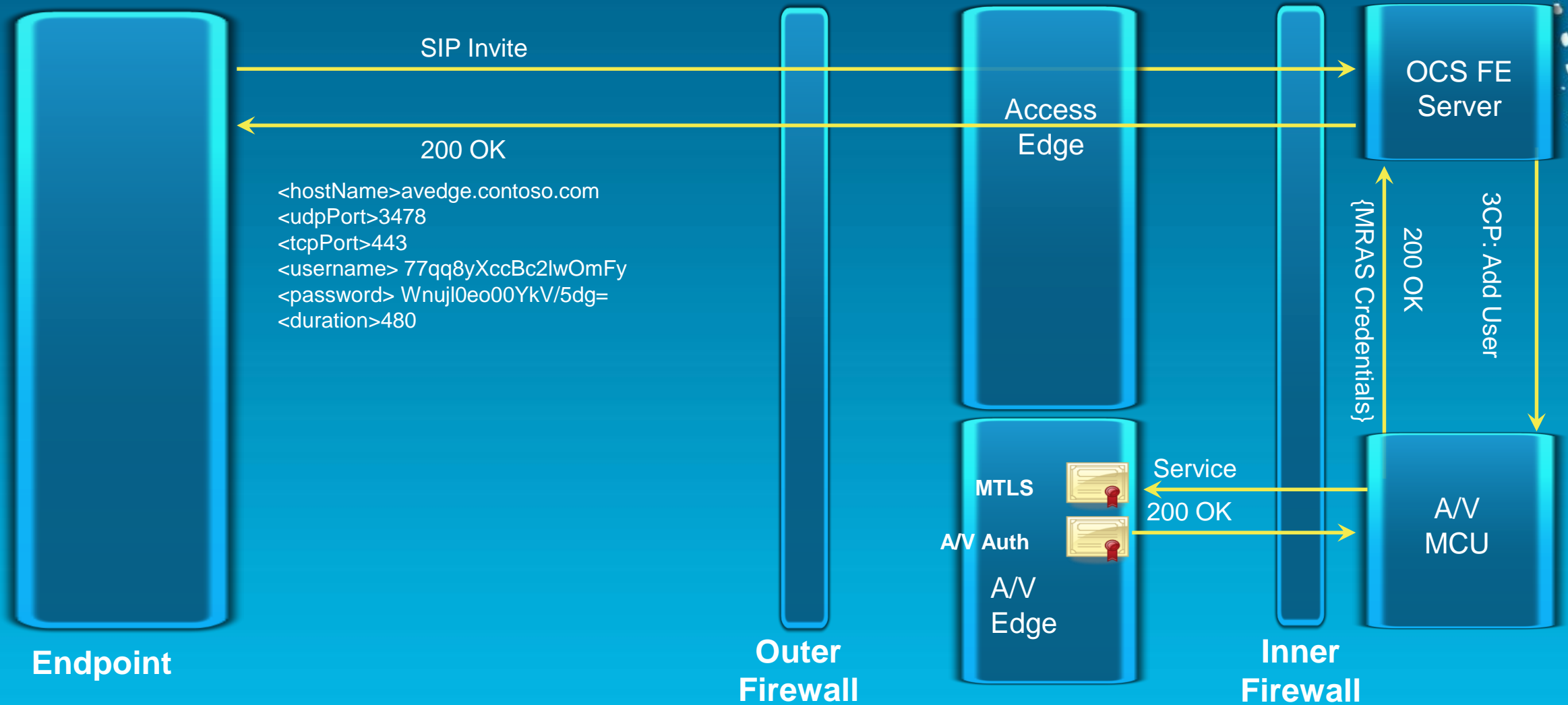
Reverse Proxy y acceso externo

- ▶ Forwards External HTTPS and HTTP traffic to Front End and Director Pool
- ▶ HTTPS
 - ▶ Simple URLs (Join Launcher URL)
 - ▶ Address Book (download and/or web service) ABS
 - ▶ Distribution List Expansion DLX
 - ▶ Web Ticket (Web Auth)
- ▶ HTTP
 - ▶ Device Updates (Firmware)
 - ▶ Device Update logs upload

Credenciales para cliente remoto



Credenciales para Conferencing



Tips para securizar mi Edge Servers

- ▶ Use a different subnet.
- ▶ Lock down the routing rules for access to that subnet (disable broadcast, multicast, and traffic to other perimeter network subnets).
- ▶ Sandwich the Edge Server between 2 firewalls.
- ▶ Leverage the [Lync Server 2010 security guide](#)
- ▶ Read and use the information in [Protecting the Edge Server Against DoS and Password Brute-Force Attacks in Lync Server 2010](#)

Securizar Comunicaciones en Lync

Can someone sniff the packets and access my IM/audio/video/data?

Traffic type	Protected by
Server-to-server	MTLS
Client-to-server	TLS
Instant messaging and presence	TLS (if configured for TLS)
Audio and video and desktop sharing of media	SRTP
Desktop sharing (signaling)	TLS
Web conferencing	TLS
Meeting content download, address book download, distribution group expansion	HTTPS

Que debo excluir desde mi antivirus corriendo en my Edge Server

IIS processes:

- ▶ %systemroot%\system32\inetsrv\w3wp.exe
- ▶ %systemroot%\SysWOW64\inetsrv\w3wp.exe

SQL Server processes:

- ▶ %ProgramFiles%\Microsoft SQL Server\MSSQL10.MSSQLSERVER\MSSQL\Binn\SQLSrvr.exe
- ▶ %ProgramFiles%\Microsoft SQL Server\MSRS10.MSSQLSERVER\Reporting Services\ReportServer\Bin\ReportingServicesService.exe
- ▶ %ProgramFiles%\Microsoft SQL Server\MSAS10.MSSQLSERVER\OLAP\Bin\MSMDSrv.exe

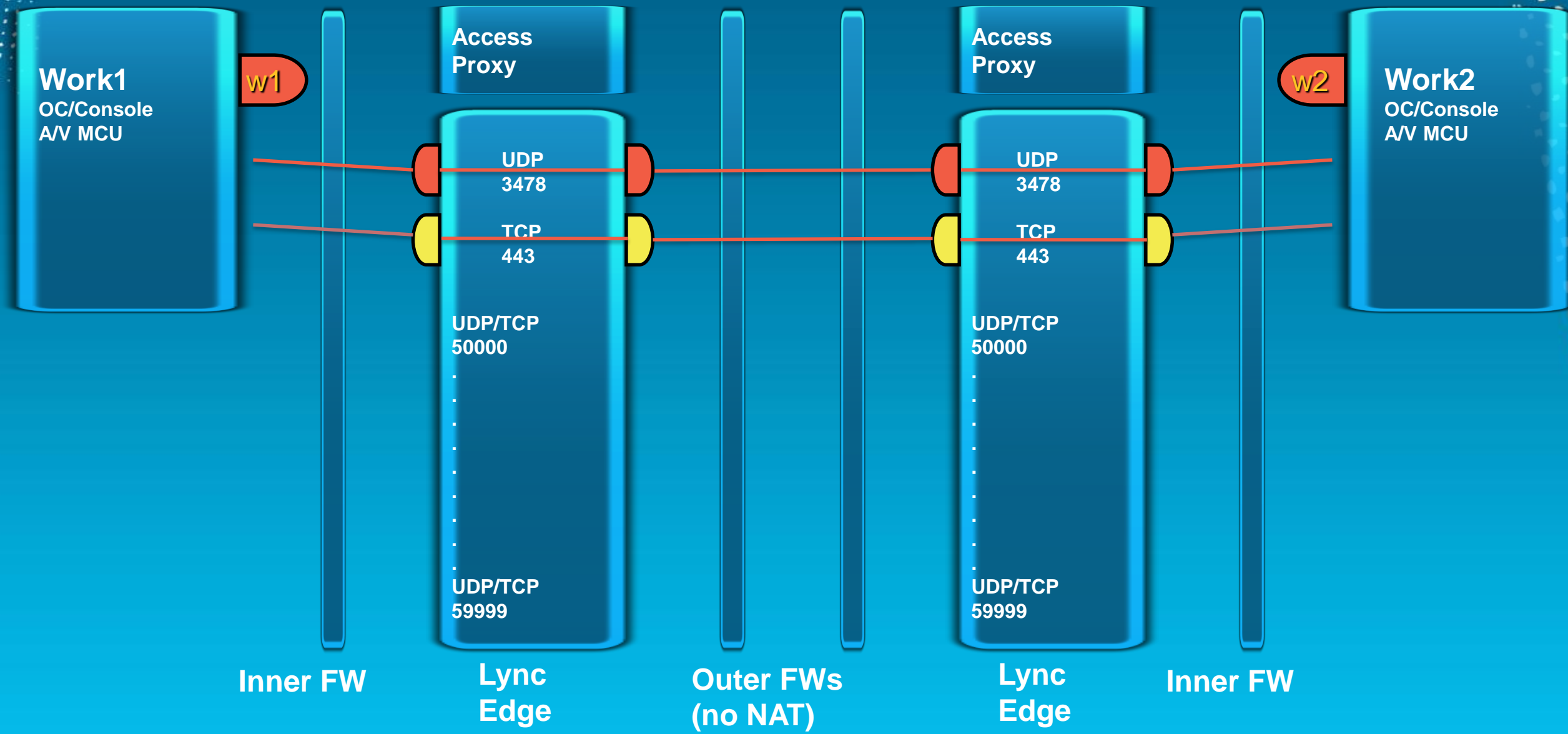
Validando Edge

- ▶ Public Web Service Tool available for Edge Validation
- ▶ Supports OCS 2007 R2 and Lync Server 2010
- ▶ <https://www.testocsconnectivity.com>

Puertos Requeridos para Audio/Video

- ▶ Lync 2010
 - ▶ UDP 3478, TCP 443
 - ▶ UDP/TCP 50,000-59,999 inbound/outbound
 - ▶ Enables federation with OCS 2007 Edges
- ▶ OCS 2007 R2
 - ▶ UDP 3478, TCP 443
 - ▶ No additional ports needed for remote access only
 - ▶ TCP 50,000-59,999 outbound
 - ▶ Enables federation with R2 Edges
 - ▶ UDP/TCP 50,000-59,999 inbound/outbound
 - ▶ Enables federation with OCS 2007 Edges
- ▶ OCS 2007
 - ▶ UDP 3478, TCP 443
 - ▶ UDP/TCP 50,000-59,999 inbound/outbound

A/V Federation Lync



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