Pexip Self Hosted – Teams Connector
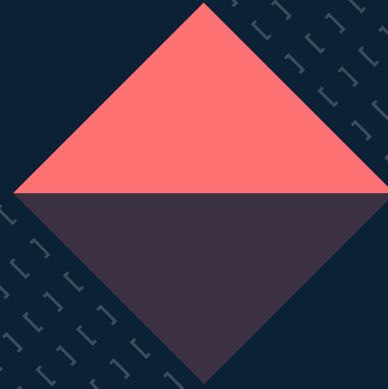
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Pexip Infrastructure Solution Components (All OnPrem Example)

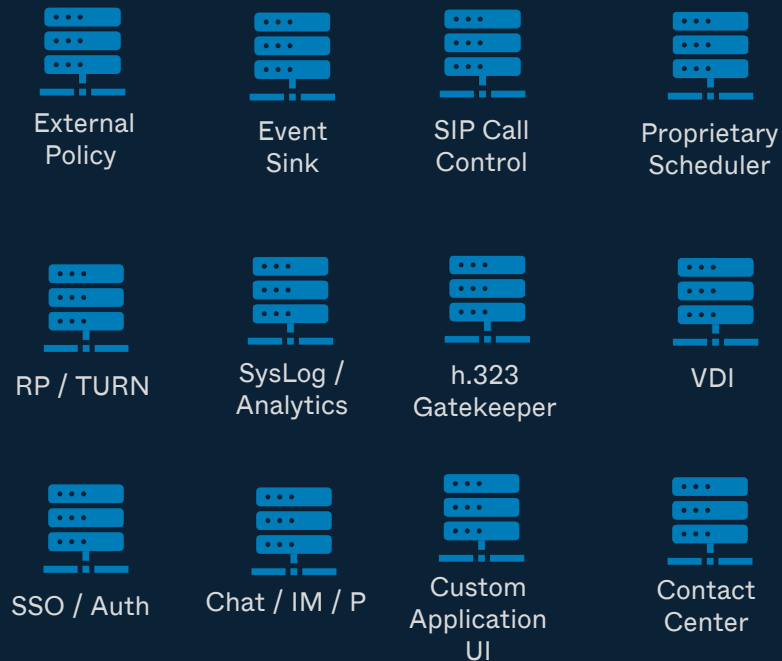**Core Components**

Management Node

Conference Node

Edge Node

vmware®

NUTANIX

aws

ORACLE

Example of 3rd-party Instances that are commonly integrated with Infinity

External Policy

Event Sink

SIP Call Control

Proprietary Scheduler

RP / TURN

SysLog / Analytics

h.323 Gatekeeper

VDI

SSO / Auth

Chat / IM / P

Custom Application UI
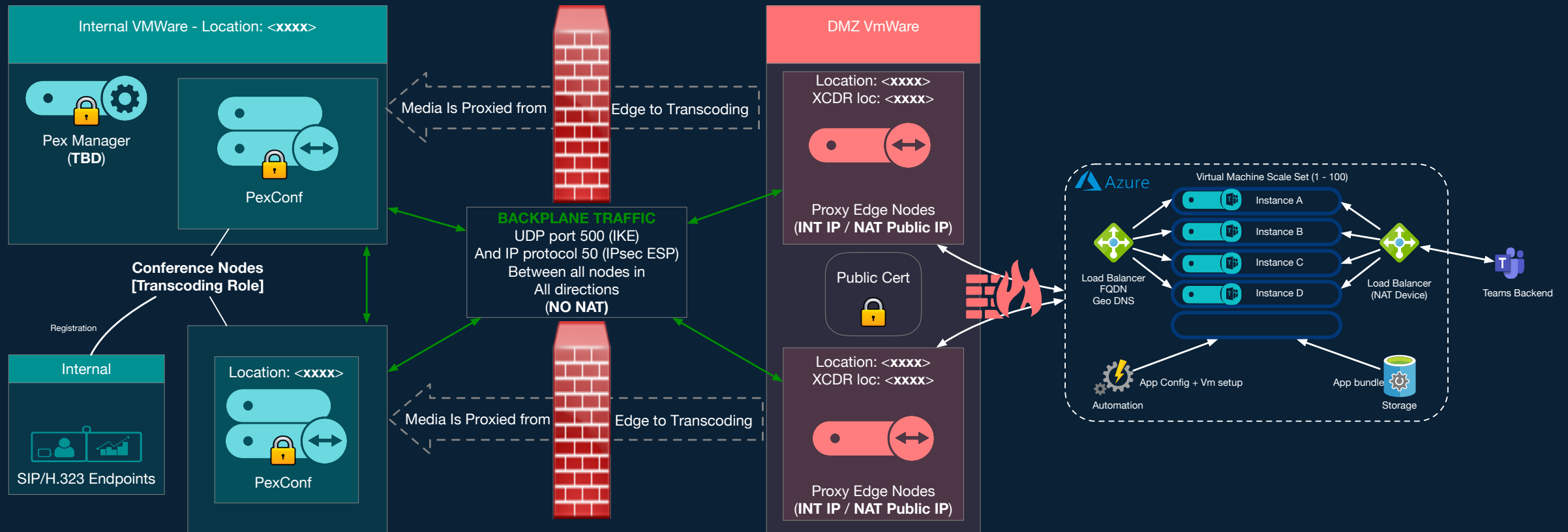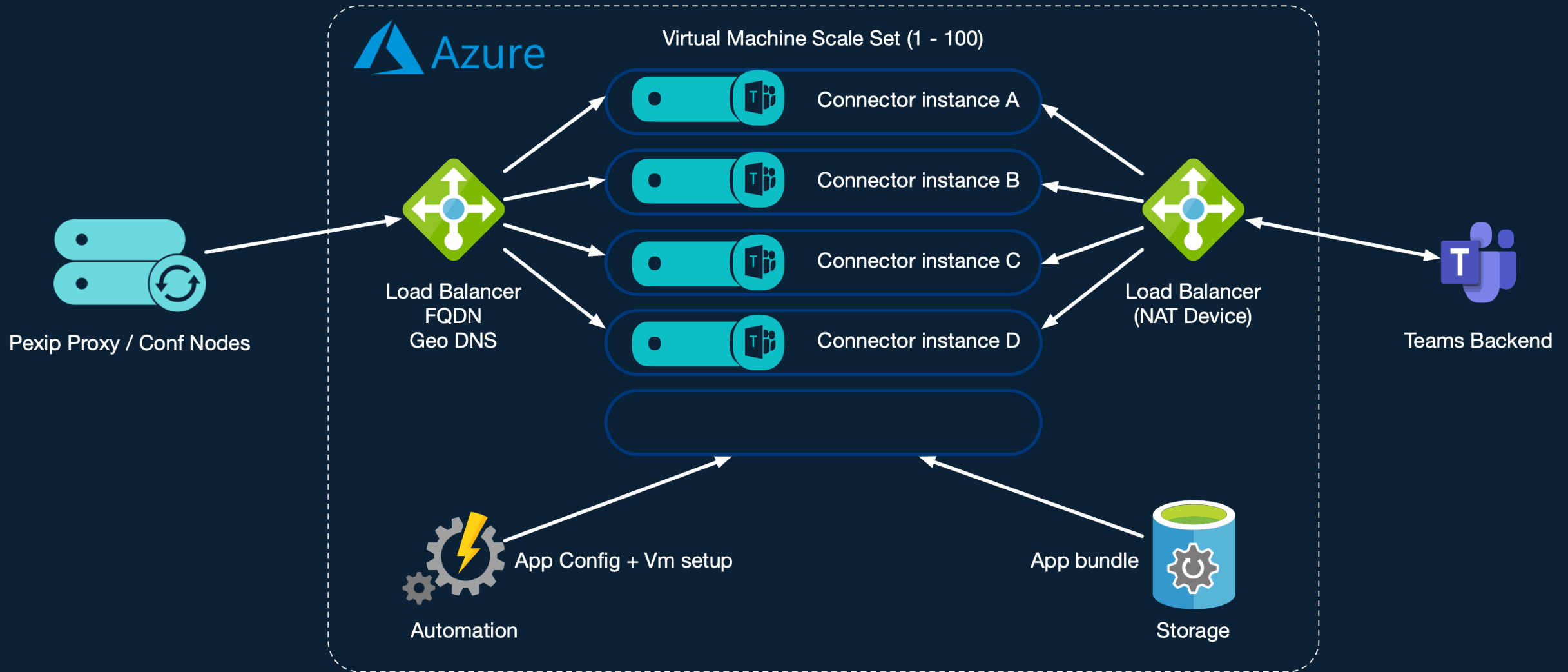
Contact Center

Teams Connector**

- Solution co-developed with Microsoft. (Infinity Required)
- Made up of Azure components (so Azure required)
- Allows for SIP/h.323 devices to interop with MS Teams (in supported tenants)

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Teams Connector Traffic Flow

Internal VMWare - Location: <xxxx>

Pex Manager
(TBD)

PexConf

**Conference Nodes
[Transcoding Role]**

Registration

Internal

SIP/H.323 Endpoints

Location: <**xxxx**>

PexConf

Media Is Proxied from   Edge to Transcoding

BACKPLANE TRAFFIC
UDP port 500 (IKE)
And IP protocol 50 (IPsec ESP)
Between all nodes in
All directions
(NO NAT)

Media Is Proxied from   Edge to Transcoding

DMZ VmWare

Location: <**xxxx**>
XCDR loc: <**xxxx**>

Proxy Edge Nodes
(INT IP / NAT Public IP)

Public Cert

Location: <**xxxx**>
XCDR loc: <**xxxx**>

Proxy Edge Nodes
(INT IP / NAT Public IP)

Azure   Virtual Machine Scale Set (1 - 100)

Instance A
Instance B
Instance C
Instance D

Load Balancer
FQDN
Geo DNS

Load Balancer
(NAT Device)

Teams Backend

App Config + Vm setup

Automation

App bundle

Storage

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Teams Connector Components

Azure

Virtual Machine Scale Set (1 - 100)

Connector instance A

Connector instance B

Connector instance C

Connector instance D

Pexip Proxy / Conf Nodes

Load Balancer
FQDN
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Teams Connector TCP/UDP Ports Breakdown

Azure

Pexip Proxy / Conf Nodes

Load Balancer

TCP - 10000-10399
TCP - 10500-10899
TCP - 11000-11399

Teams Backend

TCP signaling port range - 443

TCP - 50000-50399

Media Port Range

TCP signaling port range - 443

Media Port Range

443, 3389, 10100, 10101, 20100
(Managed by Azure security group)

UDP - 50000-54999

Connector instances

UDP - 50000-54999

TCP - Ephemeral

TCP - (signaling) Ephemeral

Management Network

OCSP Responder /
Windows update servers

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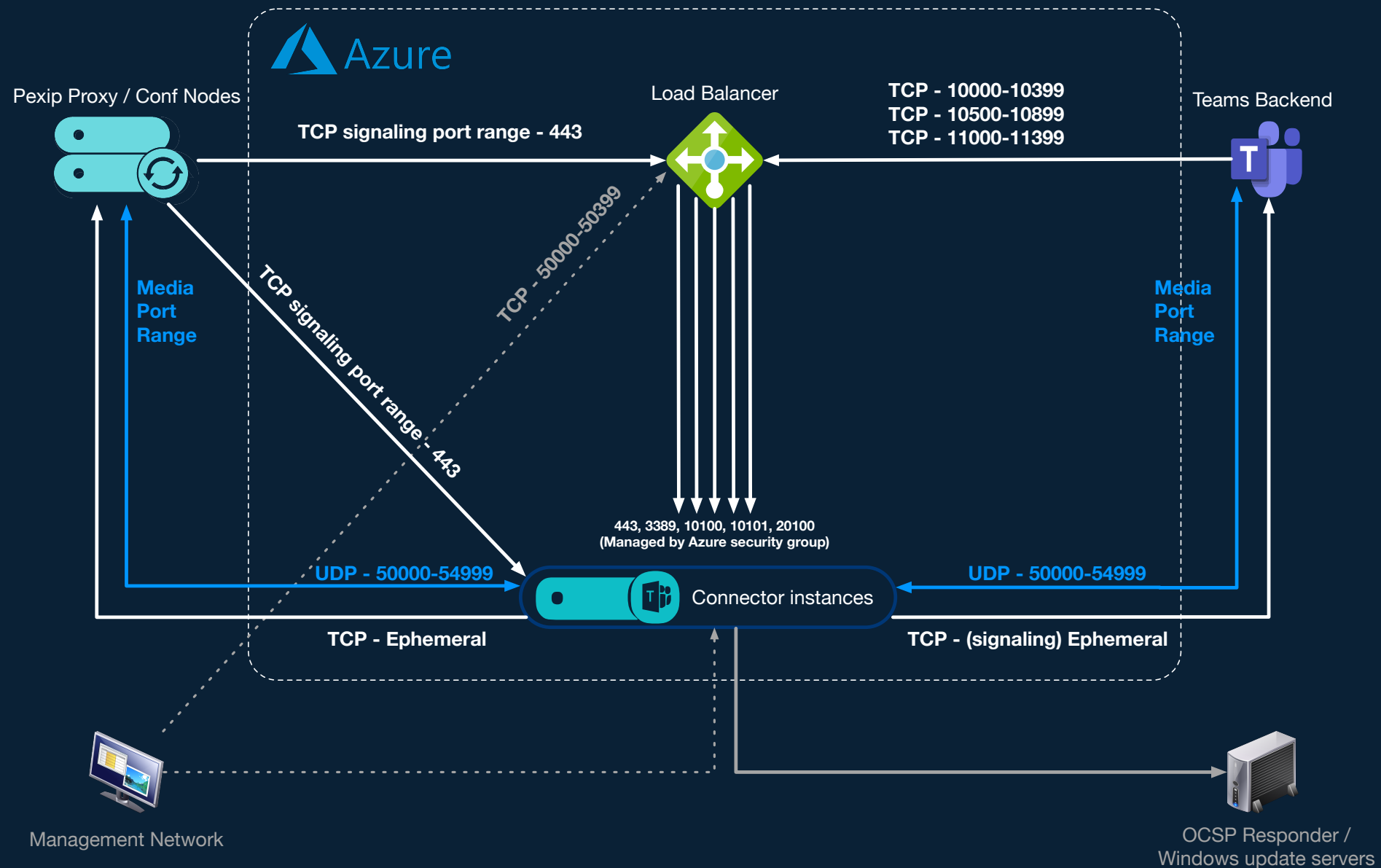
Management Node

- Hosts admin web UI
- Configure and create conferencing nodes
- Configure services
- Configure platform-wide and location specific policies
- Monitor live calls / conferences
- Aggregate conferencing node log data
- Hosts management API
- One Instance Only

Management Node

Conference Node

Edge Node

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Conference Node(s) – aka Transcoding Node

Management Node

Conference Node

Edge Node

- Minimum of One, but can scale to 150+
- Grouped in logical locations
- Runs H323/SIP/WebRTC
- Does all platform "heavy lifting"
- Video and audio processing
  (Individual transcoding & trans-rating)
- CPU-Heavy VM

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Edge Node(s) – aka Proxy Node

Management Node

Conference Node

Edge Node

- Not a hard requirement for Pexip to work
- Serves as Pexip's FW Traversal Device
- Identical software to conference nodes; but no transcoding
- Handles Signaling and Smart Load Balancing
- Proxies media to Conference nodes
- If present in architecture, it will often have Single NIC with a Static NAT or Dual NIC.

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