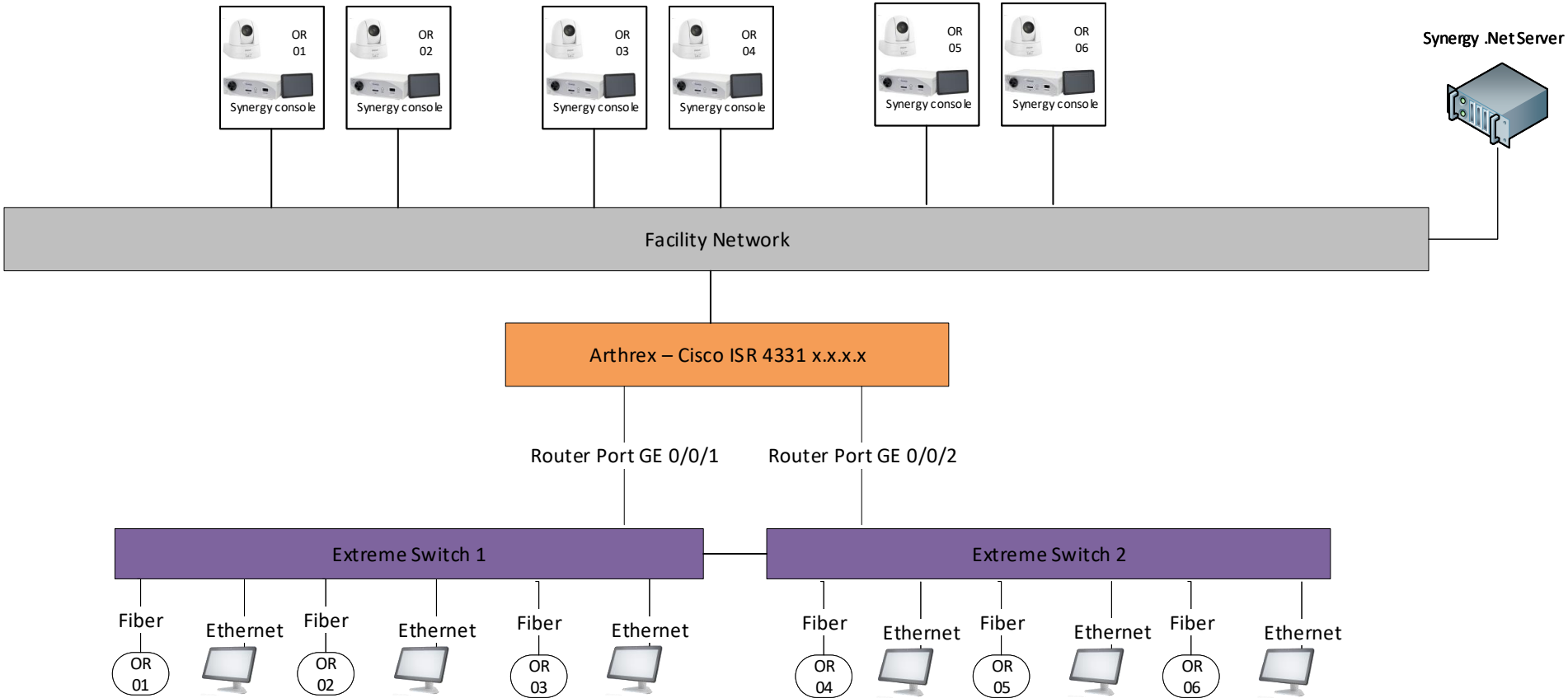# Arthrex Synergy Matrix Network Diagram – 6OR

Room Camera
- Requires Static IP and port next to camera location

Synergy Console
- Static IP or DHCP reserved. Network Port at Equipment handler

Synergy .Net Server

OR 01 — Synergy console
OR 02 — Synergy console
OR 03 — Synergy console
OR 04 — Synergy console
OR 05 — Synergy console
OR 06 — Synergy console

Facility Network

Arthrex – Cisco ISR 4331 x.x.x.x

Router Port GE 0/0/1   Router Port GE 0/0/2

Extreme Switch 1   Extreme Switch 2

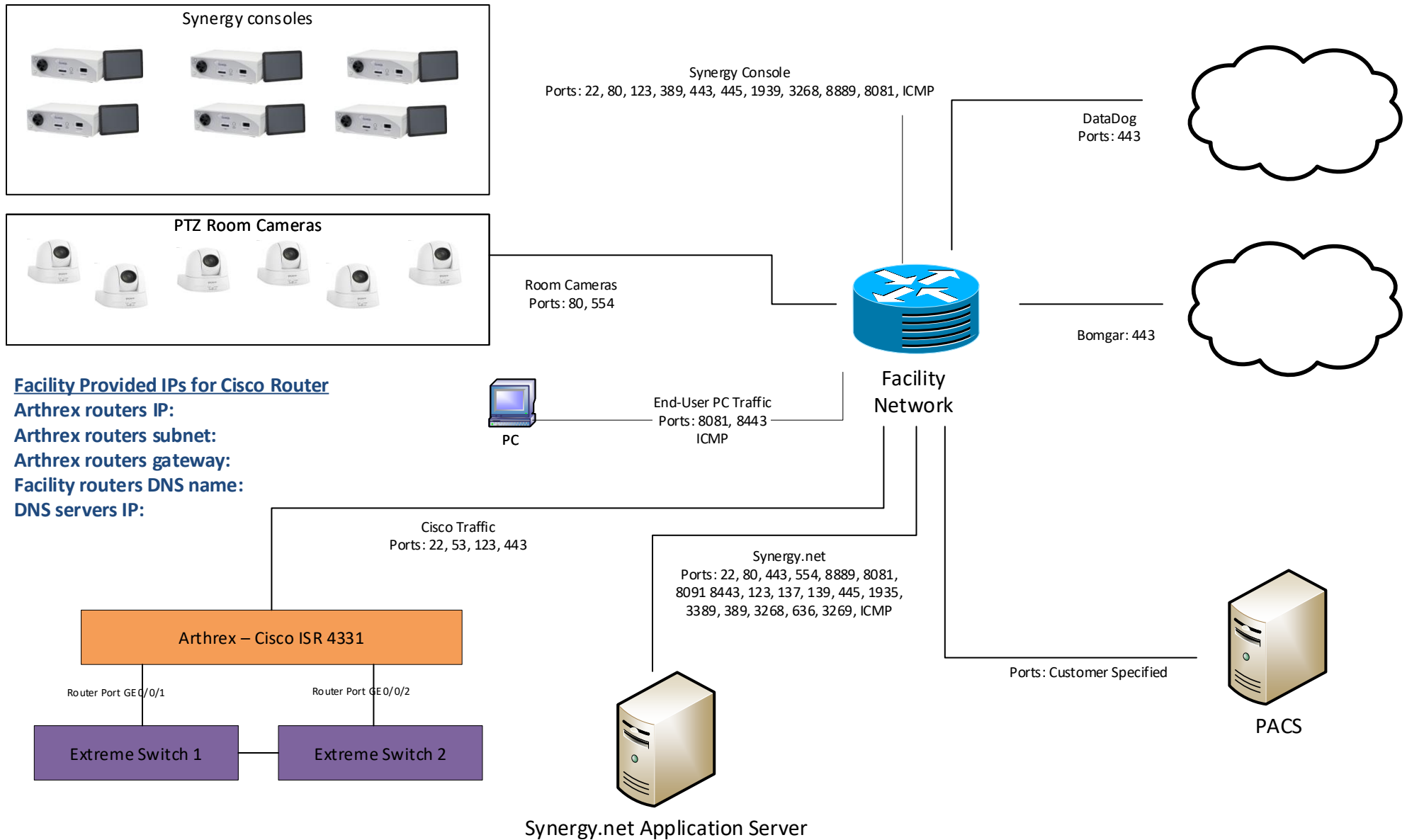| Fiber OR 01 | Ethernet | Fiber OR 02 | Ethernet | Fiber OR 03 | Ethernet | Fiber OR 04 | Ethernet | Fiber OR 05 | Ethernet | Fiber OR 06 | Ethernet |

Matrix Touch PC
- User Interface for Matrix
- Room Camera Control

Notes:
- IP addresses shown are examples. Facility IT will assign IP addresses specific to their network
- **Bomgar is used to connect from outside the facility network into the Matrix Touch PC.**
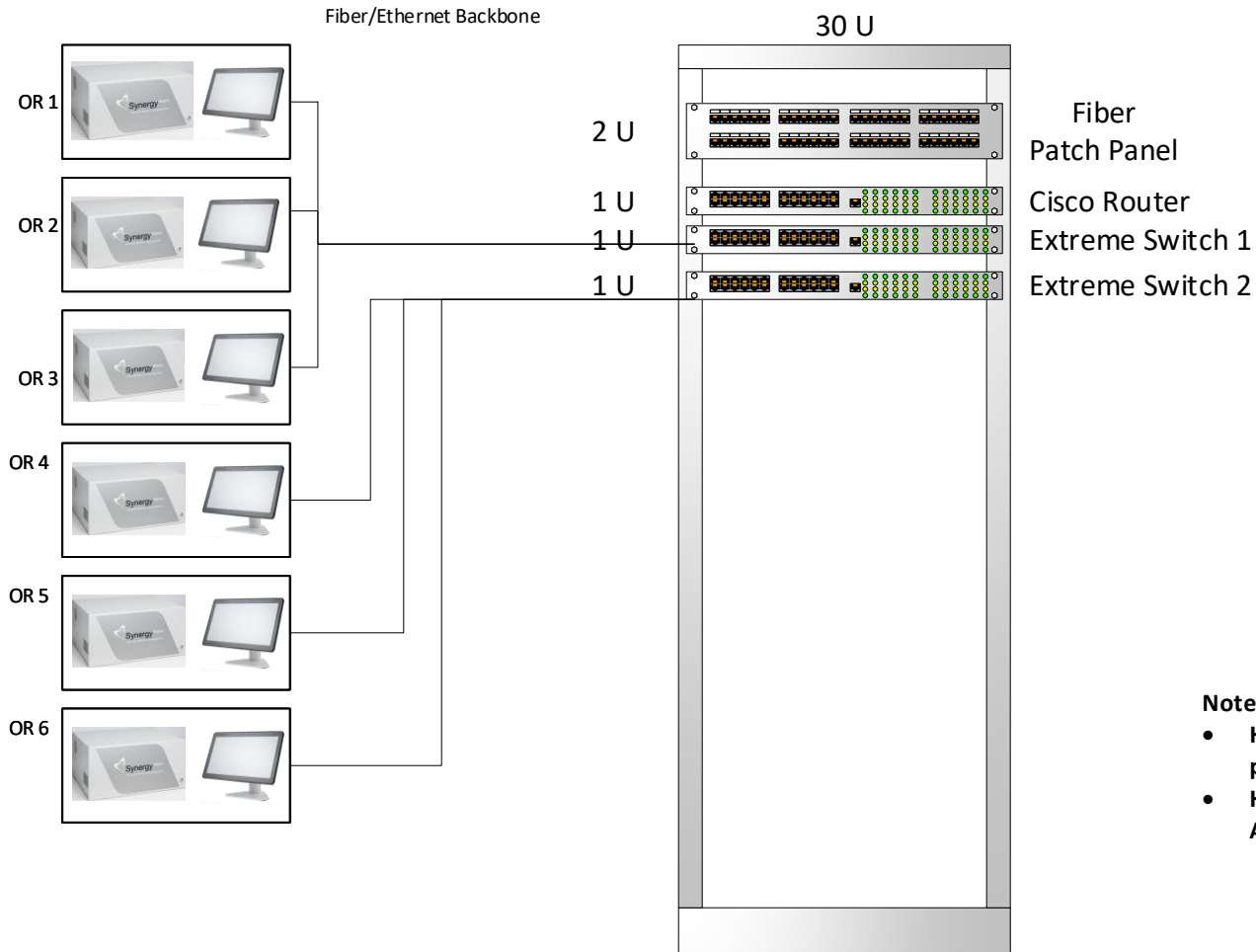
Arthrex Synergy Matrix Dataflow Diagram

Synergy *Matrix*
High Definition Video & Data Network

Synergy consoles

PTZ Room Cameras

Synergy Console
Ports: 22, 80, 123, 389, 443, 445, 1939, 3268, 8889, 8081, ICMP

DataDog
Ports: 443

Room Cameras
Ports: 80, 554

Bomgar: 443

Facility Provided IPs for Cisco Router
Arthrex routers IP:
Arthrex routers subnet:
Arthrex routers gateway:
Facility routers DNS name:
DNS servers IP:

End-User PC Traffic
Ports: 8081, 8443
ICMP

PC

Facility Network

Cisco Traffic
Ports: 22, 53, 123, 443

Synergy.net
Ports: 22, 80, 443, 554, 8889, 8081,
8091 8443, 123, 137, 139, 445, 1935,
3389, 389, 3268, 636, 3269, ICMP

Arthrex – Cisco ISR 4331

Router Port GE0/0/1

Router Port GE0/0/2

Extreme Switch 1

Extreme Switch 2

Ports: Customer Specified

PACS

Synergy.net Application Server

Synergy.net Application Server
- Application Server needs to be accessed from Facility browsers
- Communicates with all networked Synergy consoles within the Facility
- Provided by the Facility - can be a Virtual or Physical Server

Data Closet Rack Layout

Fiber/Ethernet Backbone

30 U

OR 1

OR 2

OR 3

OR 4

OR 5

OR 6

2 U — Fiber Patch Panel

1 U — Cisco Router

1 U — Extreme Switch 1

1 U — Extreme Switch 2

Notes:
- **Hospital to Provide rack power strips and/or UPS power for devices**
- **Hospital to Provide 1 Access Port with Static IP for Arthrex Cisco Router IS4331**

Power Load at Rack

Device Name	Voltage	Wattage	Number of devices	Total Wattage	BTU per Unit
Cisco router	AC 120/230v	250w	1	250	75 to 320 W, 256 to 1092 BTU/hr
Extreme Switch	AC 100/240v	550w X 2 = 1100w(redundant power)	2	2200	73 to 125 W, 250 to 427 BTU/hr
			Total	**2450**	