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# MAOP-703

## MagAO Network

<b>Prepared By: Name(s) and Signature(s)</b>		<b>Date</b>
Jared R. Males		
<b>Approved By Name and Signature</b>	<b>Title</b>	<b>Date</b>
Laird Close	PI	
Victor Gasho	Program Manager	

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<b>Issue</b>	<b>Date</b>	<b>Changes</b>	<b>Responsible</b>
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## **1. Applicable Documents**

[RD1] MAOP-700 MagAO Electronics

[RD2] Fini, L. LBT AO System Network Topology (CAN 485f004d).

## **2. Acronyms and Abbreviations**

AOS	Adaptive Optics System
ASM	Adaptive Secondary Mirror
MagAO	Magellan Adaptive Optics
TBC	To Be Confirmed
TBD	To Be Determined
TBR	To Be Reviewed
VisAO	The MagAO Visible wavelength science camera
VLAN	Virtual Local Area Network
W-Unit	Wavefront Sensing Unit

## **3. Introduction**

The Magellan AO (MagAO) network connects the various components of the system together. Details of the individual components can be found in RD1. The network is actually a series of virtual local area networks (VLAN), which are maintained as physically separate networks for reasons documented in RD2.

## **4. Network Topology**

Figure 1 shows the topology of the MagAO Network based on the test tower setup. It will remain essentially unchanged, with the exception of the external IP addresses, at Magellan. The components are arranged by whether they will be located in the Equipment Room or on the telescope (either on the Nasmyth or the ASM).

As noted in the figure, only one physical connection to the external network (or site LAN) is required, with three IP addresses.

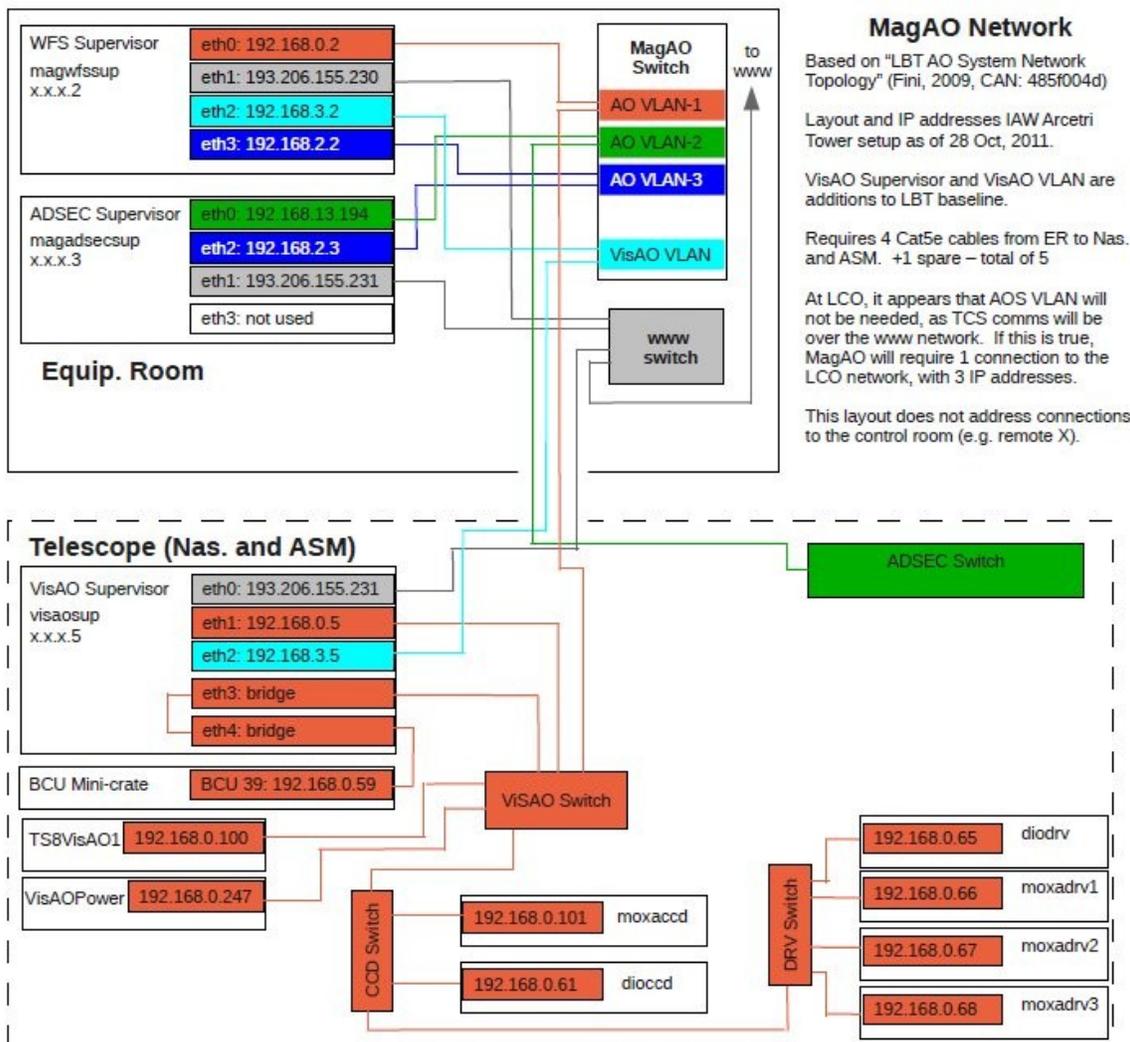


Figure 1: MagAO Network Topology. See the text for more details.

### 5. MagAO Port and VLAN Assignments

Table 1 lists the assignments of the 16 ports on the MagAO switch. All cables are labeled with their port number.

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Port	VLAN	Connection	Notes
1	AOS VLAN-1	magwfssup.wfs (eth0)	
2	AOS VLAN-1	visaosup.wfs	
3	AOS VLAN-1		
4	AOS VLAN-1		
5	AOS VLAN-2	magadsecsup.adsec (eth0)	
6	AOS VLAN-2	Adsec network	
7	AOS VLAN-2		
8	AOS VLAN-2		
9	AOS VLAN-3	magwfssup.sup (eth3)	
10	AOS VLAN-3	magadsecsup.sup (eth2)	
11	AOS VLAN-3		
12	VISAO VLAN	magwfssup.visao (eth2)	
13	VISAO VLAN	visaosup.visao	
14	VISAO VLAN	(reserved)	For future RAID
15	VISAO VLAN		
16	VISAO VLAN		

**Table 1: MagAO Switch Port Assignments**