Appendix A Technical Specifications

96867 Cologix Fiber Cable and Rack Elevation Buildout 2019

SCOPE OF WORK – COLOGIX DATACENTER FIBER PLANT INSTALL

JEA is in the process of installing a new Datacenter at Cologix, a datacenter colocation facility. This will require the implementation of a fiber optic cabling plant at JEA's new datacenter. We are requesting a quote to install new cable plant based on documentation provided by JEA (Diagrams, spreadsheets, Rack Elevation Docs). All parties will have the opportunity to come onsite to determine the requirements necessary to provide a quote for the work requested. All parties will be provided the opportunity to perform site surveys. JEA will provide a schedule to perform onsite surveys. All parties will be escorted at all times during walk through and installation if awarded. Cabling lengths between conduits will need to be verified by the vendor. JEA will provide estimated lengths between cabinets, which will be based on datacenter diagrams.

Contact Information

Cologix
4800 Spring Park Road
Jacksonville, FL 32207
855-265-6449

JEA Contacts

Scope of Responsibility

- Schedule qualified professionals to review scope of work and design to provide a detailed plan and quote for all labor and end equipment required to complete installation.
- Professional installation of the cable infrastructure
- Professional testing of the cable infrastructure
- Professional labeling of the cable infrastructure

JEA leased facility overview (Cologix):

- Datacenter Area – Contains 20 Datacenter Cabinets
- Server Cabinet Area – Contains 22 Datacenter Cabinets
- Operation Area – Contains a half cabinet

JEA will provide the following documentation

- Rack Elevation Documentation
- Floor Plans
- Documented Cabinet Layout with Labeling
- Diagrams of Cabinet Layout and Fiber Trunk Runs
- Note: The majority of the fiber runs will be between the Datacenter Area and the Server Cabinet Area, which will be provided by multiple conduit paths. Approximately 110 feet of conduit between areas. Two or Four 4 inch conduit will be installed and terminated into overhead cable trays. This includes length to overhead cabling trays to first Cabinet at both locations

Vendor will be responsible for all fiber trunks and mounting hardware

- MTP 12 Fibers LSZH or plenum OM4 50/125 Multimode Trunk Cables between racks in and between Cologix C1 area and POD1 area. Connections between areas will be provided by four 4-inch conduit. JEA would prefer pre-manufactured MTP Trunk Cables.
- 1U Single Sided Horizontal Cable Manager with Finger Duct
- 2U Single Sided Horizontal Cable Manager with Finger Duct
- 1U Rack Mount High Density Slide-out Fiber Enclosure, 48 LC, four slot, holds 4 FHD Cassettes; 12 LC per Cassette or 2 FHD; 24 LC per Cassette is acceptable. 2XMTP-12 to 12x LC Duplex; or 4XMTP-12 to 24x LC Duplex, the only requirement is 1U with 48 LC connectors.
- Vendor will determine best solution based on Type A, Type B and Type C configurations. This is a switch (LC) to switch (LC) or switch to server link configuration. The combination of methods used will need to be document and sent with quote. We prefer industry standard configurations and may affect vendor selection.

Datacenter and Server Cabinets – See Diagrams
Fiber Cable Specification – 50 Micron OM4 Multimode unless otherwise specified
Vendor will provide:

- Mount all Fiber Panels, a single 1U 48 port multimode LC
- Run all MTP Fiber Trunk Cables between racks in and between Cologix C1 area and POD1 area.
- Termination of any fiber connectors if required
- All patch panels/cabling labeled and tested

Cabinet Fiber Breakout

- All patch panels locations will be based on Rack Elevation Documentation provided by JEA
- No excess cabling on ceiling cable rack, all excess cabling within cabinet
- All Fiber Patch Panels will be 1U with 48 LC connections per patch panel.
- Fiber Patch Panels will need to be LC Connectors for Multimode 50 Micron OM4 unless otherwise specified in documentation and diagrams

Additional Requirements and known specs:

- Contractor shall design and provide all materials in order to install a structure cabling solution
- If after-hours and weekend work is required, this will need to be approved and scheduled.
- Cabinets have been preinstalled and all cabinets are 42U. Cabinet Dimensions are approximately 24” wide, 40” deep and 79’ high.
- Overhead cabling trays have been installed
- Cable plant must be low loss design, MTP Trunks , Low loss fiber cassettes, OM4 Cabling
- Follow allowable distances and channel losses per IEEE standards for 40/100G, TIA-942 Telecommunications Infrastructure Standard for Data Centers
- JEA is installing a 100G backbone using Cisco 40/100G Bidi, cable plant solution must meet 100G requirements.

Schedule:

- Contractor will provide a project plan that details the purchase time for cable and equipment, along with installment timeframes. This work is time sensitive and will be expected to start the project upon receiving a PO from JEA. The schedule will be used to manage the contract.

Appendix B - Minimum Qualification Form
#96867 Cologix Fiber Cable and Rack Elevation Buildout 2019

GENERAL

THE MINIMUM QUALIFICATIONS SHALL BE SUBMITTED ON THIS FORM. IN ORDER TO BE CONSIDERED A QUALIFIED BIDDER BY JEA YOU MUST MEET THE MINIMUM QUALIFICATIONS LISTED BELOW, AND BE ABLE TO PROVIDE ALL THE SERVICES LISTED IN THIS SOLICITATION.

THE BIDDER MUST COMPLETE THE BIDDER INFORMATION SECTION BELOW AND PROVIDE ANY OTHER INFORMATION OR REFERENCE REQUESTED. THE BIDDER MUST ALSO PROVIDE ANY ATTACHMENTS REQUESTED WITH THIS MINIMUM QUALIFICATIONS FORM.

PLEASE SUBMIT VIA EMAIL TO: GARLJB@JEA.COM

RESPONDENT INFORMATION

COMPANY NAME:____

BUSINESS ADDRESS:____

CITY, STATE, ZIP CODE:____

TELEPHONE:____

FAX:____

E-MAIL:____

PRINT NAME OF AUTHORIZED REPRESENTATIVE:__________________________

SIGNATURE OF AUTHORIZED REPRESENTATIVE:___________________________

NAME AND TITLE OF AUTHORIZED REPRESENTATIVE:______________________

MINIMUM QUALIFICATIONS:

- The Respondent shall provide evidence of successful completion of two (2) similar self-performed Fiber Cable and Rack Elevation Buildout contract within three (3) years of the Response Due Date. The contract shall be of similar complexity as specified in Appendix A – Technical Specifications.

Please note, any Respondent whose contract with JEA was terminated for default within the last two (2) years shall have their Response rejected.

Appendix B - Minimum Qualification Form
#96867 Cologix Fiber Cable and Rack Elevation Buildout 2019

REFERENCE #1

Reference Company Name____

Reference Contact Person Name____

Reference Contact Phone Number and Email Address______________________________

Contract term start and end date and date implemented___________________________

Project Title ____

Total value of the Contract____

Which of the following were included in the Project: Size of Data Center, Number of Cabinets, Type(s) of Connections: ______________________________

Description of Project and how the project/contract is similar to JEA's Technical Specifications__________

____

____

____

____

____

____

____

____

____

____

____

____

____

____

Appendix B - Minimum Qualification Form
#96867 Cologix Fiber Cable and Rack Elevation Buildout 2019

REFERENCE #2

Reference Company Name____

Reference Contact Person Name____

Reference Contact Phone Number and Email Address_____________________________

Contract term start and end date and date implemented___________________________

Project Title ____

Total value of the Contract____

Which of the following were included in the Project: Size of Data Center, Number of Cabinets, Type(s) of Connections_________________________________

Description of Project and how the project/contract is similar to JEA's Technical Specifications__________

____

____

____

____

____

____

____

____

____

____

____

____

____

____

96867 APPENDIX B – RESPONSE FORM
Cologix Fiber Cable and Rack Elevation Buildout 2019

The Respondent shall submit all documents via email to: Brooke Garland at: garljb@jea.com.

Company Name: ____

Company's Address____

Phone Number:________________FAX No: ______________ Email Address: ______________________________

BID SECURITY REQUIREMENTS ☒ None required ☐ Certified Check or Bond Five Percent (5%)	**TERM OF CONTRACT** ☒ One-Time Purchase ☐ Annual Requirements ☐ Other, Specify- Project Completion
SAMPLE REQUIREMENTS ☒ None required ☐ Samples required prior to Response Opening ☐ Samples may be required subsequent to Bid Opening	**SECTION 255.05, FLORIDA STATUTES CONTRACT BOND** ☒ None required ☐ Bond required 100% of Bid Award
QUANTITIES ☐ Quantities indicated are exacting ☒ Quantities indicated reflect the approximate quantities to be purchased Throughout the Contract period and are subject to fluctuation in accordance with actual requirements.	**INSURANCE REQUIREMENTS** **Insurance required**
PAYMENT DISCOUNTS ☐ 1% 20, net 30 ☐ 2% 10, net 30 ☐ Other _____ ☐ None Offered	

Item No.	ENTER YOUR BID FOR THE FOLLOWING DESCRIBED ARTICLES OR SERVICES Cologix Fiber Cable and Rack Elevation Buildout 2019	TOTAL BID PRICE
	TOTAL BID PRICE (Transfer from Appendix B - Response Workbook)	$<<insert TOTAL BID PRICE here>>

☐ **I have read and understood the Sunshine Law/Public Records clauses contained within this solicitation. I understand that in the absence of a redacted copy my proposal will be disclosed to the public "as-is".**

RESPONDENT CERTIFICATION

By submitting this Response, the Respondent certifies that it has read and reviewed all of the documents pertaining to this Solicitation, that the person signing below is an authorized representative of the Respondent Company, that the Company is legally authorized to do business in the State of Florida, and that the Company maintains in active status an appropriate contractor's license for the work (if applicable). The Respondent also certifies that it complies with all sections (including but not limited to Conflict Of Interest and Ethics) of this Solicitation.

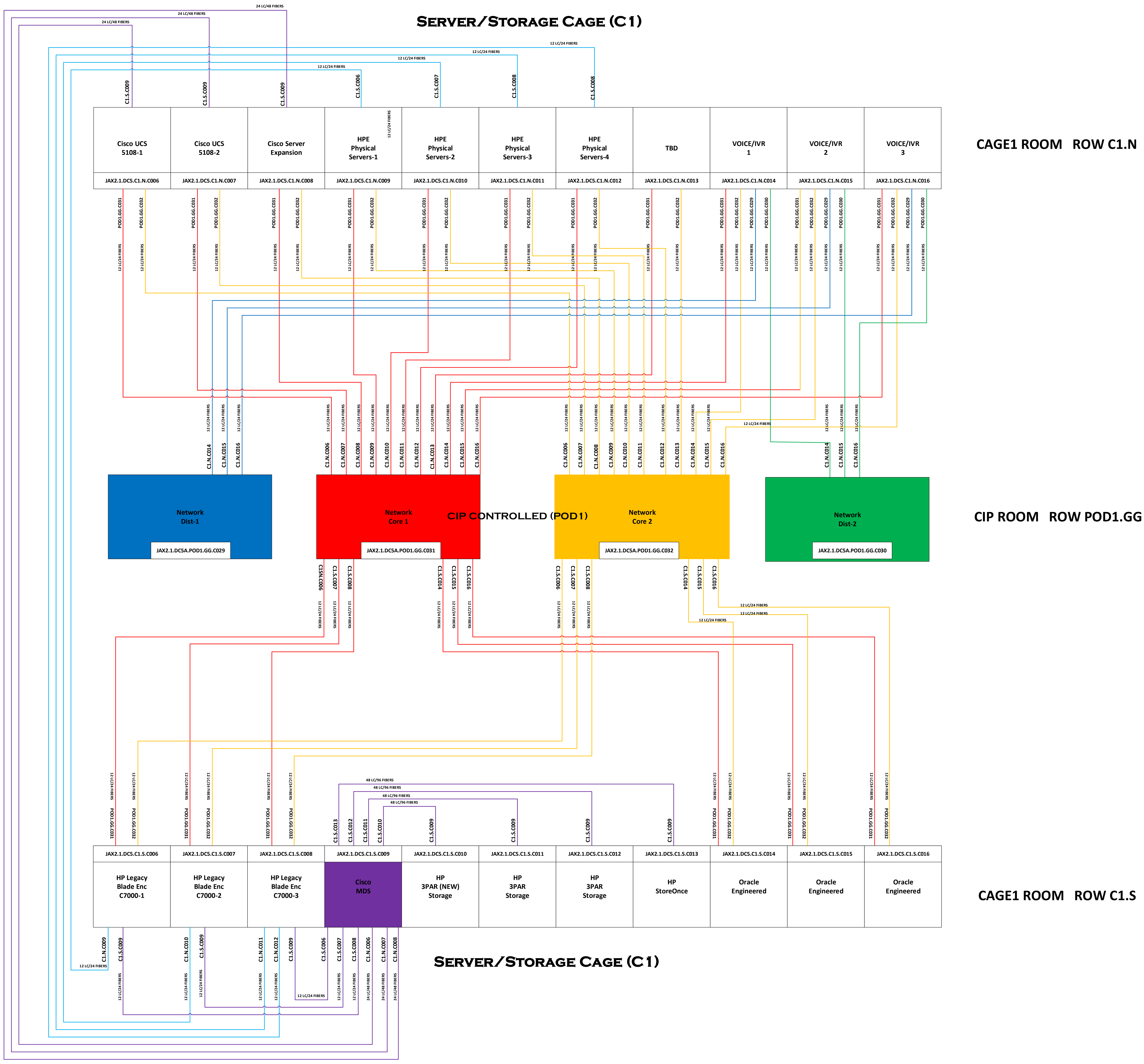
We have received addenda _______________________________________ ________________

Handwritten Signature of Authorized Officer of Company or Agent Date

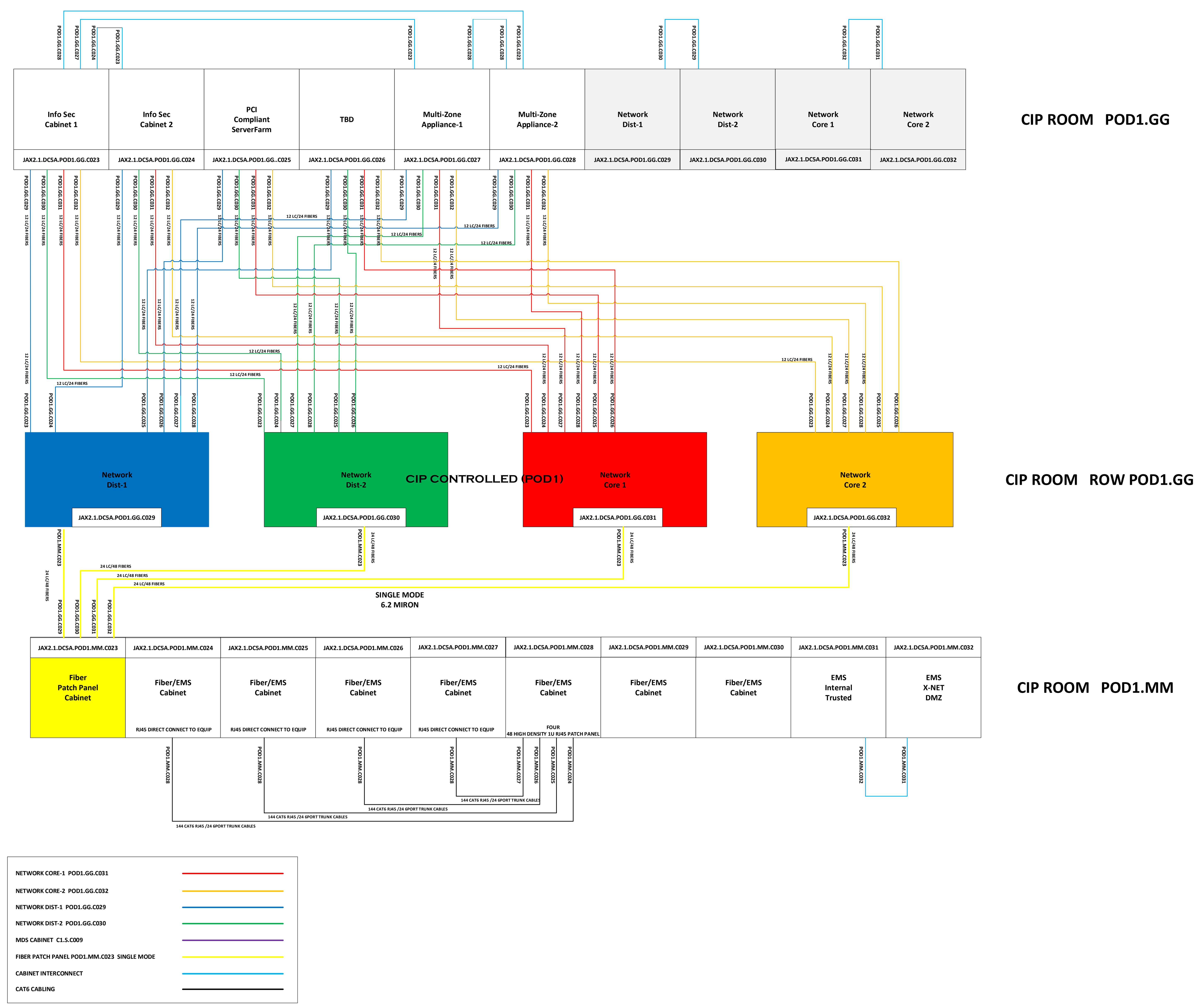
_______ through _______

____

Printed Name and Title



CIP CONTROLLED (POD1)



Server/Storage Cage (C1)

Elevations TBD by Server Team with Network Input								Elevations TBD by Telecommunications		
Cisco UCS 5108-1	Cisco UCS 5108-2	Cisco Server Expansion	HPE Physical Servers-1	HPE Physical Servers-2	HPE Physical Servers-3	HPE Physical Servers-4	TBD	VOICE/IVR 1	VOICE/IVR 2	VOICE/IVR 3
JAX2.1.DC5.C1.N.C006	JAX2.1.DC5.C1.N.C007	JAX2.1.DC5.C1.N.C008	JAX2.1.DC5.C1.N.C009	JAX2.1.DC5.C1.N.C010	JAX2.1.DC5.C1.N.C011	JAX2.1.DC5.C1.N.C012	JAX2.1.DC5.C1.N.C013	JAX2.1.DC5.C1.N.C014	JAX2.1.DC5.C1.N.C015	JAX2.1.DC5.C1.N.C016

60A Powered Racks										
JAX2.1.DC5.C1.S.C006	JAX2.1.DC5.C1.S.C007	JAX2.1.DC5.C1.S.C008	JAX2.1.DC5.C1.S.C009	JAX2.1.DC5.C1.S.C010	JAX2.1.DC5.C1.S.C011	JAX2.1.DC5.C1.S.C012	JAX2.1.DC5.C1.S.C013	JAX2.1.DC5.C1.S.C014	JAX2.1.DC5.C1.S.C015	JAX2.1.DC5.C1.S.C016
HP Legacy Blade Enc C7000-1	HP Legacy Blade Enc C7000-2	HP Legacy Blade Enc C7000-3	Cisco MDS	HP 3PAR (NEW) Storage	HP 3PAR Storage	HP 3PAR Storage	HP StoreOnce	Oracle Engineered	Oracle Engineered	Oracle Engineered
Elevations TBD by Server Teamwith Network Input										

CIP CONTROLLED (POD1)

Elevations TBD by Network Team									
Info Sec Cabinet 1	Info Sec Cabinet 2	PCI Compliant ServerFarm	TBD	Multi-Zone Appliance-1	Multi-Zone Appliance-2	Network Dist-1	Network Dist-2	Network Core 1	Network Core 2
JAX2.1.DC5A.POD1.GG.C023	JAX2.1.DC5A.POD1.GG.C024	JAX2.1.DC5A.POD1.GG..C025	JAX2.1.DC5A.POD1.GG.C026	JAX2.1.DC5A.POD1.GG.C027	JAX2.1.DC5A.POD1.GG.C028	JAX2.1.DC5A.POD1.GG.C029	JAX2.1.DC5A.POD1.GG.C030	JAX2.1.DC5A.POD1.GG.C031	JAX2.1.DC5A.POD1.GG.C032

JAX2.1.DC5A.POD1.MM.C023	JAX2.1.DC5A.POD1.MM.C024	JAX2.1.DC5A.POD1.MM.C025	JAX2.1.DC5A.POD1.MM.C026	JAX2.1.DC5A.POD1.MM.C027	JAX2.1.DC5A.POD1.MM.C028	JAX2.1.DC5A.POD1.MM.C029	JAX2.1.DC5A.POD1.MM.C030	JAX2.1.DC5A.POD1.MM.C031	JAX2.1.DC5A.POD1.MM.C032
Fiber Patch Panel Cabinet	Fiber/EMS Cabinet	Fiber/EMS Cabinet	Fiber/EMS Cabinet	Fiber/EMS Cabinet	Fiber/EMS Cabinet	Fiber/EMS Cabinet	Fiber/EMS Cabinet	EMS Internal Trusted	EMS X-NET DMZ
Elevations by Net/Fiber	Elevations TBD by Fiber and SOCC Team							Elevations TBD by Net/Server	