



**CITY OF PALO ALTO
CITY COUNCIL
Special Meeting
Monday, December 16, 2024
Council Chambers & Hybrid
5:30 PM**

Agenda Item

16. Approval of Contract C24191871 Amendment Number 1 Effective July 1, 2024 with Equinix, LLC in the Amount of \$1,246,793 to Extend the Term for an Additional 2 Years Through June 30, 2029 for Fiber Licensing Agreement (Attachment A); and Authorization to Increase Contingency Amount by \$75,000 for a Total Not to Exceed Amount of \$1,954,923; CEQA Status – Not a Project



City Council Staff Report

From: City Manager

Report Type: CONSENT CALENDAR

Lead Department: Utilities

Meeting Date: December 16, 2024

Report #:2408-3377

TITLE

Approval of Contract C24191871 Amendment Number 1 Effective July 1, 2024 with Equinix, LLC in the Amount of \$1,246,793 to Extend the Term for an Additional 2 Years Through June 30, 2029 for Fiber Licensing Agreement (Attachment A); and Authorization to Increase Contingency Amount by \$75,000 for a Total Not to Exceed Amount of \$1,954,923; CEQA Status – Not a Project

RECOMMENDATION

Staff recommends that City Council:

1. Approve and authorize the City Manager or their designee to execute amendment number 1 to contract C24191871 effective July 1, 2024 with Equinix, LLC to extend the lease of fiber optic access and termination services at the Palo Alto Internet Exchange (PAIX) for an additional two years through June 2029 for a total not-to-exceed amount of \$1,246,793, broken down as follows:
 - a. \$396,135 to lease a fiber optic cage to support Fiber-to-the-Premises for an additional two years from July 1, 2027 through June 30, 2029;
 - b. \$850,658 to lease a fiber optic cage to support the City's dark fiber licensing program for five years from July 1, 2024 through June 30, 2029; and
2. Authorize the City Manager or their designee to approve and execute any amendments to the agreement for additional services that may develop during the license period for a total not-to-exceed amount of \$181,900 for FTTP (\$109,900) and the City's dark fiber licensing program (\$75,000).

BACKGROUND

The City of Palo Alto established a Fiber Optic Utility in 1996 following the design and construction of a dark fiber optic backbone system throughout the city. Operated by the City of Palo Alto Utilities Department (CPAU), the Fiber Optic Utility licenses backbone connections to local businesses and telecommunications resellers requiring access to advanced broadband telecommunications service.

There is a highly competitive Palo Alto commercial fiber optic marketplace served by multiple telecommunication companies and Internet Service Providers (ISPs). Many of these entities control independently owned overhead and/or underground fiber optic systems. These systems are also accessed by third-party ISP-service resellers using leased capacity on the fiber optic networks.

Those CPAU fiber optic licensees wishing access to the internet outside of Palo Alto must have their CPAU fiber optic service connected to the data center (SV8) currently owned by Equinix LLC and located in Palo Alto. This neutral data center, designated as Equinix SV8, is independent of any one ISP or telecommunications carrier affiliation, and serves as an internet exchange point (IXP) providing the physical infrastructure through which over 70 ISPs and content delivery networks (CDNs) exchange internet traffic between their networks. Originally constructed by the Digital Equipment Corporation in 1996 as one of the first IXPs in the world, it was (and still locally) called the “Palo Alto Internet eXchange (PAIX).” The City has been leasing fiber optic access and termination services at PAIX since the inception of the fiber network.

For CPAU dark fiber optic licensees to access the telecommunications services provided by commercial fiber optic vendors or ISPs of their choice, the licensee, or their third-party provider, must install privately-owned electronic equipment to “light” their leased dark fiber optic cable for on-site data use, building-to-building (campus) communications, or to access internet service outside of Palo Alto.

The City Council provided direction to staff to proceed with Phase 1 of the fiber to the premises (FTTP) expansion project on December 19, 2022 ([Staff Report 14800](#)¹). In Phase 1, FTTP would be built out in selected areas of the city and expand gradually. On November 7, 2023, staff presented an update on plans related to advancing a FTTP pilot program and construction alignment with Electric Grid Modernization to the Council’s Finance Committee. Upgrading overhead lines in 90% of Palo Alto neighborhoods through electric grid modernization and piloting the build out of Palo Alto Fiber to the home supports a reliable, sustainable and connected community.

ANALYSIS

Equinix provides fiber leasing and telecom cages that support the City’s dark fiber optic licensing program and the Fiber-to-the-Premises (FTTP) project. Previously, the City had two separate contracts with Equinix for each program. The original lease agreement for dark fiber licensing was established in 1996 when the City built the dark fiber backbone. On November 27, 2023, Council approved a new license agreement with Equinix to secure a dedicated space for the infrastructure required to operate FTTP ([Staff Report 2310-2129](#)²). This Amendment extends the FTTP project contract by an additional 2 years, making it a total of 5 years, and consolidates the separate dark fiber lease program under a single contract with the same term.

¹ Staff Report 14800 <https://portal.laserfiche.com/Portal/DocView.aspx?id=59132&repo=r-704298fc>

² Staff Report 2310-2129 <https://portal.laserfiche.com/Portal/DocView.aspx?id=69113&repo=r-704298fc>

For the dark fiber licensing program, the City leases four “cabinets” (vertical racks sited next to each other, each capable of holding multiple termination/switching boxes in stacked configurations). The Equinix fiber licensing agreement includes contingency funds of \$75,000 for potential Service Orders that might be required for expanded CPAU fiber optic ductwork (“innerducts”) and cable configuration changes within PAIX during the term of the contract. This contract will also fund the lease cost for one additional cabinet which will increase CPAU’s fiber optic termination and switching capacity within PAIX by 20 percent. This additional capacity will provide sufficient PAIX resources for all projected CPAU customer growth scenarios within the term of the proposed contract.

For FTTP, a data center is required to provide internet services. Equinix is the best option to serve as the Data Center and is designated as one of two fiber huts or aggregation point which can serve up to 15,000 customers. A private cage will provide a secure space for the infrastructure required to operate the fiber and internet service provider (ISP) for FTTP. In addition, staff recommends contingency funding of \$109,900 for additional services such as additional power, cross connects to peer with other ISP’s and fiber cables. This capacity is recommended to ensure flexibility as the City begins Phase 1 of the FTTP build out and any unforeseen issues in this new line of service.

Benefits of a private cage with racks vs racks in an open or shared share:

- Scalability - Dedicated space to support the infrastructure for FTTP and new backbone.
- Privacy/Security – Only people that are approved by the City will be allowed access.
- Reliability – Reduced likelihood of damage to infrastructure by third parties.
- Efficiency – Full control of cross connects and cable management between racks.

This agreement is exempt from the City’s solicitation requirements under the “sole source” exception in PAMC Section 2.30.360 (d): Because of its geographical location, PAIX is the only economically and physically viable co-location internet facility or data center available to CPAU and its fiber optic licensees. The nearest alternative IXP data center site is in the City of Santa Clara. Connection to the Santa Clara site from Palo Alto would require miles of multiple underground conduits through several municipal jurisdictions. Such construction would be prohibitively expensive, be significantly less secure than the current Palo Alto location (greater risk due to construction and contractor dig-ins in other jurisdictions, requiring Palo Alto to contract with remotely-sited, third-party repair fiber repair companies), and limit fiber optic utility connectivity to customer sites back in Palo Alto.

FISCAL/RESOURCE IMPACT

Funding for revision number 1 of this agreement is included in the FY 2025 Adopted Fiber Optic Fund budget. Subsequent years are subject to the annual budget process and appropriation of funds. If the pilot is successful and the FTTP project continues, this will become an ongoing cost with funding in subsequent years subject to Council’s approval of each fiscal year’s budget appropriation.

STAKEHOLDER ENGAGEMENT

This has been coordinated with internal stakeholders including Information Technology and Utilities, and in consultation with Magellan/Entrust, the City's professional services partner in the development of the FTTP project. Through the Utilities Advisory Commission (UAC) and Council, the community has had the opportunity to hear updates on the status of the FTTP project and provide feedback on the project. The next update on the FTTP project is scheduled with the UAC on January 8, 2025 and is expected to discuss product offering, marketing strategy, and project timeline.

ENVIRONMENTAL REVIEW

Approval of this agreement does not meet the definition of a project under the California Environmental Quality Act (CEQA) regulations section 15378 because it is not an activity that will cause a direct physical change in the environment and is a continuing maintenance activity for the FTTP and dark fiber projects.

ATTACHMENTS

Attachment A: Amended Order with Equinix, LLC

APPROVED BY:

Dean Batchelor, Director of Utilities

Darren Numoto, Director of Information Technology;

Staff: Dave Yuan, Strategic Business Manager

EQUINIX ORDER



Account Name : CITY OF PALO ALTO
Account Number : 110002
Order Number : 1-240725154517
Version # : 5

Currency : USD
Order Valid Until : 13-Feb-2025

PREPARED BY:
Reza Fazlollahi
rfazlollahi@equinix.com

PREPARED FOR:
Anthony Enerio
anthony.enerio@cityofpaloalto.or
g

Agreement # : 00036759.0
Initial Term (Months) : 60
Renewal Period (Months) : 12
Non-renewal notice (Days) : 90

IBX: SV8									
Address: 529 Bryant Street, Palo Alto, CA, 94301, United States									
Section C: Product/Element Changes									
Product Code	Product Description	Qty	UoM	Action	Serial #	Total Charges NRC	Current Price MRC	Amended Price MRC	Effective Date
SPC00005	Secure Cabinet With Circuit Based Power	1	Each	Update	1_1514349	0.00	7,152.16	7,152.16	01-Jan-2025
CAG00001	Cage - 5 Cabinets - 1 kVA - PEC Cap- 11.52 PEC	11.52	PEC	Update	8B055-10678681	-	0.00	0.00	01-Jan-2025
SPC00002	Private Cage With kVA Based Power	1	Each	Update	4-230473911175	0.00	13,248.00	13,910.40	01-Jan-2025
POW00001	AC Power	14.4	kVA	Update	4-230473911189	-	6,624.00	6,955.20	01-Jan-2025
CAG00001	Cage - 6 Cabinets - 14.4 kVA - Liquid Cooling - No	14.4	kVA	Update	082025-22661481	-	6,624.00	6,955.20	01-Jan-2025
ECX00001	Equinix Fabric Metro Port	1	Each	Update	4-194785470989	0.00	115.76	121.55	01-Jan-2025
CC00001	Cross Connect	1	Each	Update	4-205898365286	0.00	425.43	425.43	01-Jan-2025
ECX00015	Equinix Fabric Virtual Connection Product	1	Each	Update	22252695	0.00	231.53	243.11	01-Jan-2025
ECX00015	Equinix Fabric Virtual Connection - SV - SV - 1 Gbps - AWS Direct Connect - High Capacity	1	Each	Update	4-195545328567	-	231.53	243.11	01-Jan-2025
Section Total						0.00	21,172.88	21,852.64	

IBX: SV8									
Address: 529 Bryant Street, Palo Alto, CA, 94301, United States									
Section D: Continuing Services									
Product Code	Product Description	Qty	UoM	Serial #	Unit Pricing		Total Charges		Effective Date
					NRC	MRC	NRC	MRC	
EXT00006	Innerduct	1	Each	22903912	-	-	0.00	0.00	01-Jan-2025
EXT00002	Innerduct Element	1	Each	167789	-	-	-	-	01-Jan-2025
EXT00006	Innerduct	1	Each	22903918	-	-	0.00	0.00	01-Jan-2025
EXT00002	Innerduct Element	1	Each	167806	-	-	-	-	01-Jan-2025
CC00001	Cross Connect	1	Each	1_1531336843	-	-	0.00	0.00	01-Jan-2025
CC00001	Network Cable Connection - Single-Mode Fiber - Z-side IBX- SV8	1	Each	M13324101	-	-	-	0.00	01-Jan-2025
CC00001	Cross Connect	1	Each	1_1531345602	-	-	0.00	0.00	01-Jan-2025
CC00001	Network Cable Connection - Single-Mode Fiber - Z-side IBX- SV8	1	Each	M14057067	-	-	-	0.00	01-Jan-2025
EXT00006	Innerduct	1	Each	22903895	-	-	0.00	0.00	01-Jan-2025
EXT00002	Innerduct Element	1	Each	167805	-	-	-	-	01-Jan-2025

EQUINIX ORDER



IBX: SV8									
Address: 529 Bryant Street, Palo Alto, CA, 94301, United States									
Section D: Continuing Services									
Product Code	Product Description	Qty	UoM	Serial #	Unit Pricing		Total Charges		Effective Date
					NRC	MRC	NRC	MRC	
EXT00006	Innerduct	1	Each	14689530.	-	-	0.00	1,628.91	01-Jan-2025
EXT00002	Innerduct Element	1	Each	14689530	-	-	0.00		01-Jan-2025
EXT00006	Innerduct	1	Each	14689531.	-	-	0.00	1,628.91	01-Jan-2025
EXT00002	Innerduct Element	1	Each	14689531	-	-	0.00		01-Jan-2025
EXT00006	Innerduct	1	Each	22903921	-	-	0.00	0.00	01-Jan-2025
EXT00002	Innerduct Element	1	Each	167708	-	-	-		01-Jan-2025
EXT00006	Innerduct	1	Each	22903886	-	-	0.00	0.00	01-Jan-2025
EXT00002	Innerduct Element	1	Each	167705	-	-	-		01-Jan-2025
EXT00006	Innerduct	1	Each	22903925	-	-	0.00	0.00	01-Jan-2025
EXT00002	Innerduct Element	1	Each	167728	-	-	-		01-Jan-2025
EXT00006	Innerduct	1	Each	22903931	-	-	0.00	0.00	01-Jan-2025
EXT00002	Innerduct Element	1	Each	167742	-	-	-		01-Jan-2025
EXT00006	Innerduct	1	Each	14689529.	-	-	0.00	1,628.91	01-Jan-2025
EXT00002	Innerduct Element	1	Each	14689529	-	-	0.00		01-Jan-2025
EXT00006	Innerduct	1	Each	22903916	-	-	0.00	0.00	01-Jan-2025
EXT00002	Innerduct Element	1	Each	167787	-	-	-		01-Jan-2025
PS00004	Configurable Accessories	1	Each	1_1511117304	-	-	0.00	0.00	01-Jan-2025
CC00001	Patch Panel	1	Each	CP:0705:122350	-	-	0.00	-	01-Jan-2025
CC00001	Patch Panel	1	Each	CP:0705:112870	-	-	0.00	-	01-Jan-2025
CC00001	Patch Panel	1	Each	CP:0705:112869	-	-	0.00	-	01-Jan-2025
PS00004	Configurable Accessories	1	Each	4-206690746756	-	-	0.00	0.00	01-Jan-2025
CC00001	Patch Panel	1	Each	CP:0708:1252596	-	-	0.00	-	01-Jan-2025
PS00004	Configurable Accessories	1	Each	1_1511117303	-	-	0.00	0.00	01-Jan-2025
CC00001	Patch Panel	1	Each	CP:0704:122349	-	-	0.00	-	01-Jan-2025
CC00001	Patch Panel	1	Each	CP:0704:137356	-	-	0.00	-	01-Jan-2025
PS00004	Configurable Accessories	1	Each	4-206690809836	-	-	0.00	0.00	01-Jan-2025
CC00001	Patch Panel	1	Each	CP:0708:1252595	-	-	0.00	-	01-Jan-2025
PS00004	Configurable Accessories	1	Each	4-206689457686	-	-	0.00	0.00	01-Jan-2025
CC00001	Patch Panel	1	Each	CP:0708:1252597	-	-	0.00	-	01-Jan-2025
PS00004	Configurable Accessories	1	Each	1_1511117305	-	-	0.00	0.00	01-Jan-2025
CC00001	Patch Panel	1	Each	CP:0707:112871	-	-	0.00	-	01-Jan-2025
CC00001	Patch Panel	1	Each	CP:0707:110503	-	-	0.00	-	01-Jan-2025

EQUINIX ORDER



IBX: SV8									
Address: 529 Bryant Street, Palo Alto, CA, 94301, United States									
Section D: Continuing Services									
Product Code	Product Description	Qty	UoM	Serial #	Unit Pricing		Total Charges		Effective Date
					NRC	MRC	NRC	MRC	
CC00001	Patch Panel	1	Each	CP:0707:122351	-	-	0.00	-	01-Jan-2025
PS00004	Configurable Accessories	1	Each	1_1511117306	-	-	0.00	0.00	01-Jan-2025
CC00001	Patch Panel	1	Each	PP:0708:191979	-	-	0.00	-	01-Jan-2025
CC00001	Patch Panel	1	Each	PP:0708:191978	-	-	0.00	-	01-Jan-2025
CC00001	Patch Panel	1	Each	PP:0708:191155	-	-	0.00	-	01-Jan-2025
PS00004	Configurable Accessories	1	Each	4-206688776746	-	-	0.00	0.00	01-Jan-2025
CC00001	Patch Panel	1	Each	CP:0708:1252594	-	-	0.00	-	01-Jan-2025
PS00004	Configurable Accessories	1	Each	4-206690490516	-	-	0.00	0.00	01-Jan-2025
CC00001	Patch Panel	1	Each	CP:0708:1252593	-	-	0.00	-	01-Jan-2025
Section Total							-	4,886.73	

Section Total		NRC	MRC
Section C:	Product/Element Changes	0.00	21,852.64
Section D:	Continuing Services	0.00	4,886.73

Grand Total	
Monthly recurring charge:	\$26,739.37
Non-recurring charge:	\$0.00

TERMS AND CONDITIONS

1. INTRODUCTION

This Replacement Order is governed by and incorporated by reference into the applicable Master Country Agreement or other similar agreement between the Parties ("Agreement").

Capitalized terms used but not defined in this Replacement Order shall have the meaning ascribed to them in the Agreement or shall refer to the values listed at the top of this Order.

This order is intended to amend a previous version of Agreement 00036759.0. As of the effective date of this order, Agreement 00036759.0, Order Number 1-22894272368 Version 4 is hereby terminated and replaced with this Order.

EQUINIX ORDER



This Replacement Order replaces and supersedes the Order(s) referenced below (including any Online or Phone Orders related to or incorporated by reference into such Order(s)) and will, as applicable, add those new Products detailed in Section A, terminate the Products detailed in Section B and amend the Products detailed in Section C as further detailed above from the Effective Date stated in the relevant Section.

Unless otherwise stated by this Replacement Order, the Products in the Order(s) detailed in Section D remain(s) unchanged.

2. DEFINITIONS

'Effective Date' as used in this Order shall be:

- For Section A: Product Additions, the date stated above on which the addition to the Licensed Space and Services takes effect or, if no such date is stated above, then the date the Licensed Space is provided or the Services are delivered;
 - For Section B: Product Deletions, the date stated above on which the termination of the Licensed Space and Services takes effect;
 - For Section C: Product Changes, the date stated above on which the change to the Licensed Space and Services takes effect;
- or, if no such date is stated above, then the date the Licensed Space is provided or the Services are delivered of this Replacement Order.

'Products' as used in this Order may also be referred to as Licensed Space and Services.

PRODUCT TERMS

Additional terms and conditions applicable to the Products listed above can be found at the following URL: <http://www.equinix.com/resources/product-documents> and are incorporated by reference into this Order.

3. INITIAL TERM & RENEWAL PERIOD

The Initial Term will commence on the Effective Date and will remain in effect for the Initial Term.

4. POWER LIMITATIONS

The maximum amount of electrical power that Customer may draw is stated above as Draw Cap or Qty/UoM in kVA or kW ("Draw Cap"). Customer may not draw more power than the Draw Cap. If Customer exceeds the Draw Cap, Equinix will notify Customer and Customer must reduce power draw to be equal to or less than the Draw Cap within 72 hours (or as otherwise agreed) or Equinix may, in its sole discretion, either charge Customer for the power overage at a maximum of twice the MRC/kVA rate for Licensed Space and power Services above, or suspend Customer's power Services to return to Draw Cap compliance.

5. PRICE AND PRICE INCREASE

Customer will pay the Fees for the Licensed Space and Services from the Effective Date.

Notwithstanding anything in this Order to the contrary, all Fees for those Products in the Price Increase Terms may be subject to the Price Increase with effect from the date stated in the Price Increase Terms and every twelve (12) months thereafter, except where a change in Equinix's direct electrical supply costs exceeds the Price Increase value listed below then Equinix may change the Fees for power Services by such increased cost.

Price Increase Terms	
First Price Increase Applicable After	12 months
All Products Price Increase %	5%


Renewal Price Increase Terms	
All Products Price Increase %	5%

Equinix reserves its right to delay any Effective Date for the Licensed Space and Services under this Order unless Equinix receives a signed copy of this Order before the Effective Date stated above.

Order Reference Updates			
IBX	Product Family	Order Reference #	New Order Reference #
SV8	Space & Power	1-217364579733,1-228942723689	1-240725154517
SV8	Interconnection	1-217364579733	1-240725154517
SV8	Services		1-240725154517

EQUINIX ORDER



CITY OF PALO ALTO		Equinix LLC, on behalf of itself and its U.S. Affiliates	
Signature:	Billing Contact Name: Accounts Payable	Equinix Local Entity Address:	Signature:
Name:	Billing Address:	One Lagoon Drive, 4th Floor	
Title:	PO BOX 10250	Redwood City CA	
Date:	PALO ALTO CA United States	United States	
	94303-0862	94065	
	Phone Number: 6503292494		Name: Alex Para
	Email Address: tom.auzenne@cityofpaloalto.org		Title: Commercial Finance Senior Director
			Date: 25-Nov-2024