Meeting Date: Dec. 17, 2019

To: Mayor and City Council

From: Scott Chadwick, City Manager

Staff Contact: Maria Callander, Director, Information Technology
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Joe Stephenson, Operations Manager, Information Technology
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Subject: Approval of agreements to create a digital information network in partnership with a fiber-optic infrastructure provider

 Recommended Action
Adopt three resolutions authorizing the city manager to execute agreements for the development of a digital information network using a hybrid strategy leveraging third-party fiber-optic infrastructure with city-operated equipment.

Staff recommends the City Council:

- Adopt a resolution authorizing the city manager to execute various license agreements and order forms for the digital information network from Crown Castle Fiber LLC in an amount not to exceed $3,600,000.
- Adopt a resolution authorizing the city manager to execute a professional service agreement for project management for the digital information network from Magellan Advisors LLC in an amount not to exceed $78,791.
- Adopt a resolution authorizing the city manager to execute purchase agreements for optical network equipment with maintenance and support for the digital information network from Logicalis Inc. in an amount not to exceed $4,800,058.

Executive Summary
The City of Carlsbad's current digital information network, provided by an internet carrier, has fallen short of desired performance and reliability standards and its cost is increasing. Because of an amendment to an agreement approved by the City Council in 2017, the city has access to fiber-optic cables already installed throughout the city that it can use to create a more robust, reliable and secure digital information network for city operations at a significant cost savings to the city. The city will need to purchase equipment and software to be able to utilize this network. Using third-party fiber-optic infrastructure with city owned and operated equipment is a hybrid approach to creating a digital information network that would provide the city with better service and value than what it has now. It will also allow the city to cost-effectively meet the digital demands of the future.
Discussion

Background

As digital technology has developed, the City of Carlsbad has constructed a digital information network focused on meeting the immediate operational needs of individual city departments with technology that was readily available. This has primarily been accomplished by leasing service from a third-party provider. This does not provide a foundation for the future.

The city’s daily operations are increasingly dependent on transmitting digital information around the city, whether it’s data from traffic signals or water facilities. The need to use digital technology to manage the city’s various operations is expected to grow exponentially.

In 2015, the Information Technology department worked with Magellan Advisors LLC, a consultation company that advises cities on digital infrastructure, to conduct an assessment of the city’s use of technology. That assessment identified the need for a more strategic approach to meet the city’s digital information network demands. In response, Information Technology developed a strategy focused on creating a network for all of the city’s operations that’s secure and reliable, that has the capacity to expand to meet future needs and that provides a good value to the city. (Exhibit 1: Internal Digital Information Network Action Plan)

As staff reported to the City Council in a Nov. 19, 2019, presentation on this topic, the city has contracted with an internet provider for its citywide, or wide-area, digital data network. This network carries the data for not just email and internet access, but payroll, data processing, and a wide range of other applications essential to city operations.

The current service, as was noted in the previous presentation, has significant drawbacks. The service delivers data at relatively slow speeds, given its cost to the city.

The current network also relies on service from the service provider for any repairs, or for new or upgraded service. It now takes about 90-120 days, and sometimes much longer, for city staff to get the provider to install any new service on the network. Additionally, staff has regularly needed to address network issues the provider was unable to resolve in a timely manner. This requires the dedication of staff time and resources to support the network in addition to what the city pays the network provider for support services.

The current network also comes at a significant cost, currently about $715,000 each year, which has been increasing steadily since 2015 and is expected to grow by about 10 percent a year as the city’s demand continues to grow. Staff, in consultation with Magellan Advisors, believe the costs of the network compared to the services delivered do not provide a good value for the city, given its current and future requirements.
Three options
City staff and Magellan Advisors have identified three basic options for the city to obtain a
digital information network that meets its business needs:

- **Lease the service from a private company**
  This is how the City of Carlsbad has historically provided network services. It's like a
  homeowner's internet access; the company owns the infrastructure and the customer
  pays for the service.
  Under this arrangement, the city is not responsible for the costs of installing or
  maintaining the infrastructure that delivers the data. However, the city, as a customer,
  lacks control over the network and cannot freely adapt it to meet city needs.
  In Carlsbad's case, staff has found this provides inadequate reliability, capacity, and
  speed at a relatively high cost.

- **Build and maintain the required infrastructure**
  Some cities install their own fiber-optic cable to create a digital information network.
  This gives a city total control over the infrastructure and the ability to customize it to
  meet its needs. But installing miles of fiber-optic cable around a city requires significant
  investment of time and money. Carlsbad would need to put at least 81 miles of fiber-
  optic cable underground to create its own network. Staff estimates the cost of installing
  those lines would be at least $9 million. That estimate does not include the cost of
  network equipment needed to operate a digital information network.

- **Hybrid Option - Access existing cable to create a city-managed network**
  Under this option, a city can enter into an agreement with a company that owns existing
  fiber-optic cable infrastructure that geographically meets the city's network needs. The
  city can then purchase and operate network equipment that uses the existing
  infrastructure. This saves the city the significant time and expense of installing and
  maintaining the miles of cable that carry the data while giving the city control over
  customizing and operating its data network.

The opportunity
The City Council approved an amendment to an agreement with the communications
infrastructure company Crown Castle in 2017 that gave the city access to an extensive network
of high-speed fiber-optic cables already in place under city streets.

Crown Castle operates an extensive network of these fiber-optic cables. These cables deliver
networking and telecommunications data across long distances at high speed. Companies such
as Crown Castle install these cables to then lease space on this infrastructure. The unused fiber-
optic cable is called dark fiber, because there is no light passing through it.

On August 22, 2017, the City Council approved the amendment to the city’s licensing
agreement with Crown Castle (Resolution 2017-162) allowing the company to install wireless
data transmitters on municipal facilities, in keeping with city policy and the federal mandates
governing the installation of such devices.
This amendment with Crown Castle gave the city access to four or six strands of fiber-optic cable everywhere the company has cable within the City of Carlsbad.

Staff’s analysis shows a network created using these fiber-optic cables would have:
- The reliability needed for both routine city operations and potential emergencies
- Much greater network speeds
- The ability to eliminate unnecessarily redundant networks
- The flexibility required to adapt to new demands and rapidly evolving digital technologies

Better value for the city
A comparison of the three options highlights the benefits of the hybrid option that has been identified by staff and Magellan Advisors as the city’s best option.

- Status quo, leasing network access from a network provider
  - Insufficient reliability
  - Inadequate capacity for current or future needs
  - Relatively slow speeds compared to other options
  - High cost compared to other options

- City built and operated network
  - At least $9 million in city costs to install necessary fiber-optic cable
  - $4 million to $5 million for equipment
  - City responsible for long-term maintenance and upgrades

- Hybrid option - Access existing cable to create a city-managed network
  - 91% of the fiber needed for existing needs is already installed
  - $4.4 million (current estimate) for equipment to create the capacity needed to integrate city networks
  - Increased reliability and system redundancy
  - Lower operational costs
  - Lower costs for internet service

Using either city-built or the available fiber-optic cables would give the city much greater network speeds.

Staff is recommending the council approve the hybrid option because of the benefits described above. Analysis by staff and Magellan Advisors shows it offers the best value for the city while providing the digital infrastructure required by the city’s business needs, now and in the future.

The City Council could proceed with a portion of the plan recommended by staff by approving the agreements required to access the available fiber-optic cables but putting off consideration of the purchase of the additional equipment required to integrate city systems on the new
network. However, staff is recommending the council approve the agreements associated with that purchase now because the cost of the equipment could increase significantly in coming months, adding an additional $300,000 to $500,000 in costs to this project.

If the City Council wishes to pursue the option for a city built and operated network, staff will return to Council at a later date to discuss in detail the requirements for that option.

**Hybrid option implementation**

Upon approval of the agreements, the city will have access to the fiber-optic cable that will enable the creation of a digital information network managed by the city. As mentioned above, the existing network of cable provides 91% of the city's current needs. Crown Castle will provide the remaining 9% of the city's fiber needs and will be compensated for that work under the terms of the Crown Castle Dark Fiber Agreement.

The network needs to be constructed with fail-safe redundancy, so an accidentally cut cable does not impact city operations. For that business reason, the proposed agreement with Crown Castle includes not only installing cable to meet the city's existing needs but also providing additional cable that will add security and redundancy. That cable will extend outside of the city limits, and therefore is not covered by the 2017 agreement.

Once the digital information network is completed using the Crown Castle fiber, staff will connect all city facilities currently serviced by our service provider, upgrade the backbone connection for the traffic management system and provide service to a new wireless system.

These connections will deliver data at a minimum of 10 gigabytes per second, a speed that far exceeds the current speed at every site. The new network will also provide the basis for future connectivity with other existing city networks, such as traffic signals and utilities management. Consolidation of those networks onto this main city network may be a part of a future recommendation to City Council, as appropriate.

Staff is recommending the city obtain an improved internet connection that would take full advantage of the greater capacity offered by the new network.

Due to the complexity of this project, staff is also recommending the city contract with a third-party project manager to oversee its successful execution. The city would continue to partner with Magellan Advisors for project management services because the company has been the city's key advisor in this process. The city purchasing officer has approved a sole source exemption for this agreement pursuant to Municipal Code section 3.28.110, Exemptions B and N, due to the need for continuity of service.

Under staff's proposal, the city would partner with Logicalis, a value-added reseller and solutions provider of Cisco networking technologies, to procure the equipment and services needed to make full use of the services provided by Crown Castle. Logicalis would also implement new network management software, wireless infrastructure, and logical network design.
The city would also maintain a service contract with Logicalis to provide assistance to staff as needed for any major changes, updates or enhancements in future years.

Because of the previous amended agreement with Crown Castle, which enables the city to take advantage of the company's fiber-optic cable network, the city's purchasing officer has approved a "sole source" exemption to the city's bidding process pursuant to Municipal Code section 3.28.110 - Exemptions (B) and (N).

Equipment purchases and related services from Logicalis are being procured on a pre-bid contract. [NASPO ValuePoint Master Agreement #AR233 (14-19) and Cisco Participating Addendum CA #7-14-70-04] in compliance with Carlsbad Municipal Code, Chapter 3.28.100 - Cooperative Purchasing. The city's purchasing officer has approved the use of this cooperative agreement.

**Next steps**

If the City Council approves staff's recommendation to begin building this network, the next step would be authorizing the city manager to execute agreements and purchases. City staff would then begin work with Crown Castle, Logicalis and Cisco to implement the network, including services engagements and equipment purchases.

Staff, and representatives from Crown Castle, Magellan and Logicalis estimate the entire project would be completed between a year to 18 months from the date the agreements are signed.

In subsequent phases of developing this new network, staff could continue connecting the traffic and city utilities systems to the new digital information network.

**Fiscal Analysis**

The proposed Crown Castle Dark Fiber agreement will cost the city $27,000 a month, or $324,000 a year, and will cover a 10-year term with the option to renew the contract for two-year periods for as long as the city requires the use of the service. There are fee adjustments based on the Consumer Price Index that would take place during those renewal periods.

The new internet connection staff is recommending would cost an estimated $6,000 a month, or $72,000 a year, with a five-year term. The existing internet service used by the city provides a fraction of that capacity, as noted above, but costs about $10,000 a month.

The Cisco equipment needed to get the maximum capacity out of the four or six fibers would cost $4,446,793 at the current price quoted to the city. That offer includes capital costs, licensing, and maintenance for five years. Logicalis would be the reseller of this equipment.

This service contract with Logicalis would cost $70,654 per year.

The project management agreement with Magellan Advisors would cost $78,791.
The current cost of the city's contract for its wide-area network is approximately $715,000 a year, not including the staff time that must be spent to help support and maintain the system.

The new system will cost about $470,000 a year. This would give the city an annual savings of $245,000 and control over a scalable digital information network that would potentially cost the city $9 million to build even before equipment purchases.

All costs are summarized in the table below.

### DIGITAL INFORMATION NETWORK COSTS

<table>
<thead>
<tr>
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<th>Year 1</th>
<th>Years 2-5</th>
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</thead>
<tbody>
<tr>
<td><strong>One-time costs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Logicalis agreement</td>
<td>$4,446,793</td>
<td>$0</td>
</tr>
<tr>
<td>Magellan agreement</td>
<td>$78,791</td>
<td>$0</td>
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<tr>
<td><strong>Total one-time costs</strong></td>
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<td>$0</td>
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<td><strong>Funding sources</strong></td>
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<tr>
<td>Innovation Funds</td>
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<td><strong>Annual costs</strong></td>
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<tr>
<td>Crown Castle agreements</td>
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<td>Logicalis agreement</td>
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<td><strong>Total annual costs</strong></td>
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<td><strong>Current operating offset</strong></td>
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<td>$-3,575,000</td>
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<tr>
<td><strong>IT Dept operating budget savings</strong></td>
<td>$-248,347</td>
<td>$-1,708,390</td>
</tr>
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</table>

Money has been set aside in the city's Innovation Fund in past years. Capital costs for this project and additional funds necessary will be provided from that fund. During the project, there may be short periods during which both the old and new networks will need to run in parallel. Those duplicate costs will be paid from the innovation fund. The anticipated operating expenditure decreases will be incorporated into the Information Technology Operations Budget in future budget requests.

**Environmental Evaluation (CEQA)**

Pursuant to Public Resources Code Section 21065, the recommended action does not constitute a "project" within the meaning of the California Environmental Quality Act as it has no potential to cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and therefore does not require environmental review.
Public Notification and Outreach

This item was noticed in accordance with the Ralph M. Brown Act and was available for public viewing and review at least 72 hours prior to scheduled meeting date.

Exhibits

1. Internal Digital Information Network Action Plan
2. Resolution to execute various license agreements with Crown Castle Fiber LLC
3. Resolution to execute professional service agreement with Magellan Advisors LLC
4. Resolution to execute various agreements with Logicalis Inc.
5. End User Information Form, for end users of Cisco Enterprise Agreement
6. Nov. 19 staff report, Update on the city’s Digital Information Network
7. Memo approving exemption of competitive bidding for Crown Castle Fiber LLC
8. Memo approving exemption of competitive bidding for Magellan Advisors LLC
9. Memo approving use of NASPO Value Point
INTERNAL DIGITAL INFORMATION NETWORK ACTION PLAN

PURPOSE

This document outlines the high-level plan to implement a strategic digital information network for the City of Carlsbad that will fully utilize advanced hardware and software to provide robust and scalable network infrastructure.

Digital information networks are the foundation of all other digital services that Information Technology provides. Without a network, data cannot be transported. Recognizing that a modern high speed and high capacity network is necessary to support current and future technical initiatives, city staff have the following plan to provide for such a network.

GUIDING PRINCIPLES

In consideration of the strategic importance of the network, the following guiding principles for this effort have been identified.

The new network must have the following attributes:

- Reliable – The network must operate with minimal disruption.
- Resilient – The network must be capable of supporting reliability by being designed in such a way as to dynamically respond to potential faults.
- Responsive – The network must complete communications tasks predictably and with minimal latency.
- Scalable – The network must be able to grow to meet future demands without significant upgrades to physical infrastructure.
- Unified – The network must support the combined operation of all city technology needs.
- Cost-effective – The network must provide excellent value to the city as compared to current commercial offerings.

OUR CURRENT STATE

Currently the city relies on multiple networks and varying types of architecture to provide services to its various departments. Over the past fifteen to twenty years, IT incrementally assembled a core operations network mostly by outsourcing these critical communications services to third-party providers. Meanwhile, the city’s traffic management division, working in conjunction with its own consultants, have built a parallel network of wireless devices and copper wiring. The utilities division is operating the fresh water management system, monitoring water quality and delivery, through automated systems using supervisory control and data acquisition (SCADA) systems on yet another series of connections. These fragmented approaches have been undertaken because the city has not previously taken a holistic, citywide approach to delivering network services with an eye toward making long-term investments in infrastructure. These separate environments are now in need of replacement and modernization, and meeting the city’s needs will require a strategic and unified approach.
While careful planning has been applied to the physical growth of the city, the same care has not been applied to our digital growth. Some municipalities have chosen to install fiber-optic cable during the development of new communities. For various reasons, Carlsbad has never made this type of investment.

In 2017 the City Council approved an amendment to an existing agreement with a company called Crown Castle. This agreement entitles the city to the use of four to six strands of fiber-optic cable wherever the company has cable in the City of Carlsbad. From mid-2018 to the end of 2019 staff have worked with a consultant, Magellan Advisors, to design a solution to make use of this valuable asset. During that time, staff, in partnership with Crown Castle and Magellan Advisors, developed a plan that aligns with the guiding principles listed above.

The network design unifies the long-term vision of digital communications within the city, providing for a citywide fiber network connecting all buildings within the city while avoiding the need to construct an entirely new fiber network. The Crown Castle digital network can then be the foundation for applications supporting the transport of data to support the Traffic Management Division, the Utilities Division, Public Safety and other operating groups within the city.

**PLAN**

The delivery of effective data network services is an ongoing process of evaluating current needs, demands and capabilities. This process begins with continually evaluating the needs of our organization. Staff measures the demands needed as compared to the capacity to deliver on these demands. Then, based on research and partnership with experts, staff will assess new solutions and technologies. Lastly, as these new capabilities are understood, staff will work with partners to scale, or upgrade, the network to meet the operational needs. This process is depicted in the diagram below.
With this process in mind, staff have identified an initial series of projects that will provide the basis for this cycle of continuous improvement.

The following outlines the projects of the plan:

1) Replace third-party core operations network with a unified, identity aware, hybrid network
2) Extend the unified network to provide data networking services for the Traffic Management System
3) Extend the unified network to provide data networking services for the Utility Management System

**CORE OPERATIONS NETWORK**

There are five key steps in the first project that will create a new core operations network for the City of Carlsbad:

1) **Crown Castle** – Utilize the existing agreement with Crown Castle to build a city-managed network using fiber-optic cable. This will allow us to have a redundant fiber network now. Over time, investments can be made to install city owned fiber-optic cable as needs are identified.

2) **Replace traffic backbone** – The network backbone for the traffic management system represents the aggregate connection points around the city where multiple intersections connect back to the Traffic Management Center. The Information Technology department will include these key locations in this step and install necessary network switching devices to replace the existing wireless connectivity with high speed fiber-optic connections. This is to provide for increased speed and capacity and decreased latency of these connections to meet increased demands of new traffic technologies.
3) **Advanced network hardware** – Provide best value and scalability of the fiber-optic assets from Crown Castle by installing Dense Wave Division Multiplexing (DWDM) electronics at key sites. These devices are capable of virtually dividing fiber-optic cables to allow for the critical ability to scale the core network without the need to acquire new underground cable. This capability will allow the city’s network to grow considerably in the future as needs grow without having to build a full city-wide fiber cable network.

4) **Network management software** – Implement a software defined network that enables the logical management of data using a technology known as Digital Network Architecture (DNA) made by Cisco. This software allows IT to implement and securely deliver network services to meet all needs of the city without having to build various separate physical networks. This not only greatly reduces duplication and cost but also simplifies management and enables for more capability.

5) **Wireless** – A modern network needs to be ready to deliver data using wireless transmission in a secure and reliable manner. Extending the capabilities of Cisco DNA into our wireless network allows expanded mobility and greater range of connectivity options. All manner of sensors and connected-devices rely on wireless connectivity due to the challenge that would exist to physically cable such large number of devices. This step includes replacement of end-of-life wireless equipment currently in place that will provide for this new capability.

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**EXTEND TO TRAFFIC**

The second project is upgrading the existing cable infrastructure of the traffic management network and then unifying this environment with the core operations network:

1) **Identify detailed architecture** – IT will work with staff in the Traffic Division and their consultants to identify a detailed architectural design for both new fiber-optic cable installs and network switching equipment as needed, based on upcoming implementations of advanced traffic management solutions.

2) **Fiber in arterial segments** – The Information Technology department, working in cooperation with the Traffic Division, will evaluate connectivity requirements on major roadways around the city. The city already owns extensive underground conduit that can be used to install fiber-optic cable. Other sections may require limited construction to install conduit and fiber.

3) **Add network management software** – Once the physical network has been extended to the necessary traffic locations, IT will turn on the software functionality of the unified network to suit the Traffic Department’s needs. Although physically part of the single city network, the devices that manage our traffic network would be virtually segmented from other parts of the network to assure proper security and functionality.
PROPOSED CONCEPTUAL DESIGN

Legend

- Main site
- Backbone site
- Intersection
- City Fiber
- Crown Castle Fiber
The third project will be working with the Utilities Department and consultants to provide the capabilities of the unified network. Due to the nature and location of many of the department’s facilities, wireless technologies would likely be used heavily.

1) **Identify Detailed Architecture** – IT will work with the utilities division and their consultants to identify a detailed architectural design for both new fiber-optic cable, wireless, and potentially Crown Castle installs. Network equipment would be identified as part of the new utility system design process.

2) **Wireless** – Wireless capabilities of the unified network would be extended to meet the needs of the utilities department.

3) **Software** – As with other parts of the unified network, Cisco DNA software would be extended to the utilities network to provide extensive security and reliability of this key piece of critical infrastructure.
RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CARLSBAD, CALIFORNIA, AUTHORIZING THE CITY MANAGER TO EXECUTE VARIOUS LICENSE AGREEMENTS AND ORDER FORMS FOR THE DIGITAL INFORMATION NETWORK FROM CROWN CASTLE FIBER, LLC IN AN AMOUNT NOT TO EXCEED $3,600,000.

WHEREAS, the City Council of the City of Carlsbad has received a presentation on Dec. 10, 2019, concerning the recommendation to build a robust digital information network for the city; and

WHEREAS, the City of Carlsbad has determined the most effective way to support a city digital information network is through a Master Telecommunication License Agreement; and

WHEREAS, the digital information network will replace a legacy network and will improve overall reliability, performance and expansion; and

WHEREAS, Crown Castle Fiber, LLC is a sole source provider of a digital information network as determined by the City of Carlsbad purchasing officer; and

WHEREAS, pursuant to Section 3.28.110 Exemptions, of the Carlsbad Municipal Code, the purchasing officer may buy directly from a vendor when the goods, services and/or professional services that can be reasonably obtained from only a single source.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Carlsbad, California, as follows:

1. That the above recitations are true and correct.

2. That the agreements and order forms with Crown Castle Fiber, LLC for a digital information network are hereby approved and the city manager or his designee is authorized to execute all required documents on behalf of the city.

3. That the Master Telecommunications License Agreement (Attachment A) with Crown Castle Fiber, LLC is a sole source agreement as further described by Attachment A that was provided by Crown Castle Fiber, LLC.

4. That the Dark Fiber Supplement to the Master Telecommunications License Agreement and Order Form (Attachment B) with Crown Castle Fiber, LLC is a sole source agreement in the amount not to exceed $3,240,000 over a 10 year period as further described by Attachment B that was provided by Crown Castle Fiber, LLC.
5. That the Internet Supplement to the Master Telecommunications License Agreement and Order Form (Attachment C) with Crown Castle Fiber, LLC is a sole source agreement in the amount not to exceed $360,000 over a five year period as further described by Attachment C that was provided by Crown Castle Fiber, LLC.

6. That funding for these agreements is provided in the Information Technology Operations Fund and the Innovation Fund. The funding for following years maintenance will be brought forth with future Operating Budget submittals for consideration and approval.

PASSED, APPROVED AND ADOPTED at a Regular Meeting of the City Council of the City of Carlsbad on the ____ day of ________, 2019, by the following vote, to wit:

AYES:

NAYS:

ABSENT:

________________________
MATT HALL, Mayor

________________________
BARBARA ENGLESON, City Clerk

(SEAL)
RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CARLSBAD, CALIFORNIA, AUTHORIZING THE CITY MANAGER TO EXECUTE A PROFESSIONAL SERVICE AGREEMENT FOR PROJECT MANAGEMENT FOR THE DIGITAL INFORMATION NETWORK FROM MAGELLAN ADVISORS, LLC IN AN AMOUNT NOT TO EXCEED $78,791.

WHEREAS, the City Council of the City of Carlsbad has received a presentation on Dec. 10, 2019, concerning the recommendation to build a robust digital information network for the city; and

WHEREAS, the City of Carlsbad has determined the most effective way to support the implementation of a city digital information network is through a professional service agreement for project management; and

WHEREAS, the digital information network will replace a legacy network and will improve overall reliability, performance and expansion; and

WHEREAS, Magellan Advisors, LLC is a sole source provider for project management for a digital information network due to previous engagements with the City of Carlsbad as determined by the City of Carlsbad purchasing officer; and

WHEREAS, pursuant to Section 3.28.110 Exemptions, of the Carlsbad Municipal Code, the purchasing officer may buy directly from a vendor when the goods, services and/or professional services that can be reasonably obtained from only a single source.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Carlsbad, California, as follows:

1. That the above recitations are true and correct.

2. That the professional service agreement with Magellan Advisors, LLC for a digital information network project manager is hereby approved and the city manager or his designee is authorized to execute all required documents on behalf of the city.

3. That the Fiber Network Implementation Project Management professional service agreement (Attachment A) with Magellan Advisors, LLC is a sole source agreement in the amount not to exceed $78,791 over the life of the digital information network implementation as further described by Attachment A that was provided by Magellan Advisors, LLC.

4. That funding for the professional service agreement is provided in the Innovation Fund.
PASSED, APPROVED AND ADOPTED at a Regular Meeting of the City Council of the City of Carlsbad on the ___ day of ________, 2019, by the following vote, to wit:

AYES: 
NAYS: 
ABSENT:

__________________________
MATT HALL, Mayor

__________________________
BARBARA ENGLESON, City Clerk

(SEAL)
RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CARLSBAD, CALIFORNIA, AUTHORIZING THE CITY MANAGER TO EXECUTE VARIOUS PURCHASE AGREEMENTS FOR OPTICAL NETWORK EQUIPMENT WITH MAINTENANCE AND SUPPORT FOR THE DIGITAL INFORMATION NETWORK FROM LOGICALIS, INC IN AN AMOUNT NOT TO EXCEED $4,800,058.

WHEREAS, the City Council of the City of Carlsbad has received a presentation on Dec. 10, 2019, concerning the recommendation to build a robust digital information network for the city; and

WHEREAS, the City of Carlsbad has determined the most effective way to support a city digital information network is through equipment and maintenance support agreements; and

WHEREAS, the digital information network will replace a legacy network and will improve overall reliability, performance and expansion; and

WHEREAS, Logicalis Inc., an authorized Cisco reseller of the various needed equipment and maintenance support, provides products and services under the NASPO ValuePoint Master Agreement #AR233(14-19), Cisco Participating Addendum CA #7-14-70-04 contract; and

WHEREAS, pursuant to Section 3.28.100 Cooperative Purchasing, of the Carlsbad Municipal Code, the purchasing officer may buy directly from a vendor at a price established by another public agency when the other agency has made their purchase in a competitive manner.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Carlsbad, California, as follows:

1. That the above recitations are true and correct.

2. That the agreements and with Logicalis, Inc., for various equipment and maintenance support for a digital information network are hereby approved and the City Manager or his designee is authorized to execute all required documents on behalf of the city.

3. That the purchase of Optical Network Switch Project with Premier EA network equipment and maintenance from Logicalis, Inc. under a NASPO ValuePoint Master Agreement #AR233(14-19), Cisco Participating Addendum CA #7-14-70-04 contract shall not exceed $4,446,793 as further described by Quote No. 2019-74903v2 from Logicalis, Inc. (Attachment A).

4. That the purchase of DWDM Support Remote 1 year with NOC Managed Services 1 Year from Logicalis, Inc. under a NASPO ValuePoint Master Agreement #AR233(14-19), Cisco
Participating Addendum CA #7-14-70-04 contract shall not exceed $353,263 for a five year period as further described by Quote No. 2019-75409v1 from Logicalis, Inc. (Attachment B).

5. That funding for these agreements is provided in the Information Technology Operations Fund and the Innovation Fund. The funding for following years maintenance will be brought forth with future Operating Budget submittals for consideration and approval.

PASSED, APPROVED AND ADOPTED at a Regular Meeting of the City Council of the City of Carlsbad on the__ day of _______, 2019, by the following vote, to wit:

AYES:

NAYS:

ABSENT:

________________________
MATT HALL, Mayor

________________________
BARBARA ENGLESON, City Clerk

(SEAL)
End User Information Form
For End Users of the Cisco Enterprise Agreement

To purchase one or more of the available suite(s) for you and your Participating Affiliate(s), an authorized representative of the End User must complete this form in its entirety and sign it. This form will be used to define the scope of the agreement. Cisco provides a quote to your reseller for the selected suite(s), based upon the information that you provide in this form. Your reseller will in turn provide a quote to you. **This form is used by Cisco solely to provide a quote to your reseller.**
## End User Overview

### End User Information

<table>
<thead>
<tr>
<th>Full legal name of the organization you represent</th>
<th>CITY OF CARLSBAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address of its principal place of business</td>
<td>1635 FARADAY AVE</td>
</tr>
<tr>
<td></td>
<td>CARLSBAD CA</td>
</tr>
<tr>
<td></td>
<td>92008 USA</td>
</tr>
</tbody>
</table>

### Your Enterprise Coverage

Cisco requires any Participating Affiliate(s) for which you are purchasing enterprise coverage to be included in this End User Information Form. Cisco relies on this list to define the scope of the agreement, ensure accurate pricing, as well as effective provisioning and support.

**Participating Affiliate(s)**

- None

**Additional information/list of Participating Affiliates**

- Not Applicable
Cisco Enterprise Agreement for Cisco DNA

### Cisco DNA for Switching Suite

<table>
<thead>
<tr>
<th>Hardware Model</th>
<th>Advantage Quantity</th>
<th>Premier Quantity</th>
<th>Add On Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>C2960X/XR 24-Port CISCO DNA Essentials Only</td>
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<td>C2960X/XR 48-Port CISCO DNA Essentials Only</td>
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<tr>
<td>CISCO DNA Cat 3560CX 12 Port</td>
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<tr>
<td>CISCO DNA Cat 3850 12/24 Port Fiber</td>
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<td>0</td>
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<tr>
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<td>0</td>
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<tr>
<td>CISCO DNA Cat 3850 48 Port</td>
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<tr>
<td>CISCO DNA Cat 4500X High Port (32 port)</td>
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<tr>
<td>CISCO DNA Cat 9300 48 Port</td>
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<td>CISCO DNA Cat 9500-32QC (high-port density)</td>
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<tr>
<td>CISCO DNA IE 5000 High</td>
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### Cisco DNA for Wireless Suite

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<th>Premier Quantity</th>
<th>Add On Quantity</th>
</tr>
</thead>
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<tr>
<td>CISCO DNA Wireless</td>
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<td>168</td>
<td>0</td>
</tr>
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</table>
End User Information Form Acceptance

AS AN AUTHORIZED REPRESENTATIVE OF THE END USER, YOU REPRESENT THAT THE INFORMATION PROVIDED IN THIS FORM IS ACCURATE AS OF THE DATE OF YOUR SIGNATURE AND THAT THE ESTIMATE(S) ABOVE IS/ARE A GOOD FAITH ESTIMATE OF THE PRICING METERS (e.g., KNOWLEDGE WORKERS, SECURITY CONTENT USERS, DEVICES, AGENTS, and PORTS), AS APPLICABLE, TO THE EA SUITE(S) THAT YOU ARE PURCHASING. YOU UNDERSTAND THAT CISCO RELIES UPON THE ACCURACY OF THE INFORMATION PROVIDED IN THIS FORM TO PROVIDE A QUOTE TO YOUR RESELLER, TO LICENSE ITS SOFTWARE TO YOU, TO PROVIDE YOU WITH UPGRADES, AND TO PROVIDE TECHNICAL SUPPORT ON THE PRODUCTS INCLUDED IN THE EA SUITE(S). YOU ALSO UNDERSTAND THAT YOU ARE UNDER NO OBLIGATION TO PURCHASE BY COMPLETING THIS FORM.

<table>
<thead>
<tr>
<th>End User Acceptance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Legal Name of the Organization You Represent</td>
</tr>
<tr>
<td>Name</td>
</tr>
<tr>
<td>Title</td>
</tr>
<tr>
<td>Date</td>
</tr>
<tr>
<td>End User authorized representative signature</td>
</tr>
</tbody>
</table>

© 2019 Cisco and/or its affiliates. All rights reserved. This document is Cisco Confidential Information.
Program Terms
For End Users of the Cisco Enterprise Agreement
Program Terms

The terms provided below ("Program Terms") together with each of its exhibits and the applicable EUIF, comprise Your Cisco Enterprise Agreement ("Cisco EA"). Capitalized terms have the meanings set out below or in Exhibit A (Definitions).

1. Enterprise-wide Entitlement. This Cisco EA gives You and Your Participating Affiliates the right to access on an enterprise-wide basis the Software and Services included in the purchased Suites under your enrollments, subject to the Program Terms. You and Your Participating Affiliates may: (a) provide access to the Suites to Employees and Contractors (b) install or deploy the Suites on all Devices, and (c) receive Support Services for the Suites.

2. Suites; Suite Descriptions. A "Suite" is a combination of Software and Services listed in the applicable Suite Description. A Suite Description may list more than one Suite, and the right to access the Software or Services under the Cisco EA extends only to the Suites you purchase and identify on Your EUIF. Suite Descriptions provide additional terms that apply to each Suite and are located in Exhibit B (Suite Descriptions).

3. Suite Meters. The Suites You purchase under your enrollment include one or more meters which are described in the applicable Suite Description. The meter counts You include in the EUIF are used to calculate the initial price of the Suite and the amount of Software and Services included in Your initial purchase ("Initial Meter Count"). Meters are also used to measure consumption of the Software and Services included in the Suite for the purposes of calculating Your True Forward order (if applicable).

4. Ongoing Innovation. Each Suite is dynamic in nature, and Cisco may, in its discretion, add new capabilities or Software or Services to a Suite, or modify existing capabilities or Software or Services in a Suite, as long as such changes do not materially reduce the core functionality of the Software or Services in the Suite. Updates to the Suite as part of such ongoing innovation will be reflected in the EA Workspace.

5. Use of EA Workspace. Unless otherwise stated in the Suite Description, You will be provided access to a license management and provisioning portal that displays the amount and type of licenses You and Your Participating Affiliates access during the Term, including any additional optional add-on licenses Cisco makes available to You for purchase ("EA Workspace"). Cisco may use the information contained in Your EA Workspace to help determine any True Forward fees. Cisco has no liability arising out of You or your Participating Affiliates' use of Your EA Workspace and You understand and agree that You are responsible for the actions of any user You or Your Participating Affiliates authorize to access the EA Workspace, including payment for any additional Software or Services that they purchase. You will be required to choose a user name and password and at all times You are responsible for maintaining the confidentiality of Your username, password, and account details. You must immediately notify Cisco of any known unauthorized use(s) of Your EA Workspace, or any known or suspected breach of security on Your EA Workspace, including loss, theft, or unauthorized disclosure of Your password.

6. End User Information Form; Payment Obligations. To purchase a Suite under your enrollment, You must provide Cisco or Your Reseller with a valid End User Information Form ("EUIF"), signed by Your authorized representative. You must pay for any Software or Services identified on your EUIF before Cisco makes the Software and Services available for your use. Any Software and Services accessed by You or Your Participating Affiliates during the Term not identified on Your EUIF (beyond any applicable growth allowance), including optional add-on Software or Services, will be paid for under the True Forward process (Section 8) if applicable.
You understand and agree that Cisco and Your Reseller rely on the information You provide in the EUIF as the basis for the quote provided to You.

7. **Adding Additional Suites.** Under your enrollment You may purchase additional Suites during the Term by providing Cisco or Your Reseller with a new EUIF signed by Your authorized representative and approved by Cisco. Any additional Suites You purchase under Your Cisco EA enrollment will co-terminate at the end of the Term. The purchase of additional Suites will not extend the Term. Additional Suites must be added a minimum of twelve (12) months before the end of the Term and will be subject to these Program Terms.

8. **True Forward.** Cisco uses a process to determine the fees due for accessing Software and Services under your enrollment in excess of the Initial Meter Count ("True Forward") unless otherwise stated in the Suite Description. If the Suite includes a growth allowance, then Your Initial Meter Count may be exceeded by the applicable growth allowance and You will not owe any True Forward fees until the growth allowance is exceeded. For the Software and Services included in Your initial purchase, Your Reseller (or Cisco, if the applicable Cisco EA is purchased directly from Cisco) will provide You with a "not to exceed" maximum unit price per meter for any True Forward fees that may be owed during the Term.
   
   A True Forward occurs:
   
   a) Annually on each anniversary of the Effective Date (if more than one purchased Suite includes a True Forward, then the first anniversary will apply to all purchased Suites); and
   
   b) At the end of the Term to account for any perpetual Software licenses accessed during the final year of the Term in excess of Your Initial Meter Count and which you have not already purchased under an earlier True Forward event.

   Further details on the True Forward process are included in the applicable Suite Descriptions. Cisco reserves the right to validate the meter count upon which a True Forward order is based. If You fail to pay any portion of the applicable True Forward fees when due and You fail to cure that payment breach within thirty (30) days' notice, Cisco may suspend access to additional Software and Services in the Suite and/or suspend Your and Your Participating Affiliates' access to the EA Workspace.

9. **Support Services.** Support Services are included in the purchased Suites under your enrollment, and additional Support Services may be available for an additional fee, as indicated in the applicable Suite Description. At each True Forward event, Support Services are charged as follows: (i) for term-based Software and Cloud Services, Your True Forward fees will include Support Services to the end of the Term; and (ii) for perpetual Software licenses, Your Support Services fees are charged separately, with the applicable fees being pro-rated from the date Cisco processes Your True Forward order to the end of the Term.

10. **Term & Termination.** The duration of the Cisco EA will be included in the quote from Your Reseller (or Cisco, if the Cisco EA is being purchased directly from Cisco) ("Term"). For each Suite, the effective date of these Program Terms is the date when Cisco makes the Software available for download or available for You and Your Participating Affiliates to use ("Effective Date"). The Term commences on the earliest Effective Date of the first Suite that You purchase. All Cloud Services subscriptions and Support Services are term-based and will begin on the applicable Effective Date and continue until the end of the Term. The Suite Descriptions indicate whether
a Software license is a term-based license or perpetual license; term-based Software subscriptions begin on the applicable Effective Date and continue until the end of the Term and perpetual Software begins on the applicable Effective Date, with no termination by Cisco (provided that you comply with the conditions of use set forth in the EULA).

If a party materially breaches the Program Terms (including failure to pay required fees) and does not cure that breach within thirty (30) days' notice, the non-breaching party may terminate these Program Terms for cause ("Termination"). At the end of the Term or upon Termination:

a) You or Your Participating Affiliates, as applicable, may continue to use any perpetual Software licenses, in accordance with the terms of the EULA, that You or Your Participating Affiliates have accessed and paid for as of the end of the Term; and

b) All Services and term-based Software licenses terminate; and

c) The following rights of You and Your Participating Affiliates terminate: (i) the right to receive Support Services, (ii) the right to add additional licenses or downloads of Software, (iii) the right to activate additional Software licenses or access Cloud Services;

d) You and Your Participating Affiliates' access to the EA Workspace terminates; and

e) You and Your Participating Affiliates must destroy any product activation keys (PAKs) not in use and must convert Cisco EA PAKs used during the Term to non-Cisco EA PAKs provided by Cisco.

11. Participating Affiliates. You are responsible for the compliance of any Participating Affiliates under these Program Terms. In the event there is a change to Your list of Participating Affiliates, You must notify Cisco by sending an email to: ela-affiliate-update@cisco.com, with the following information: Your name, the names of the relevant Affiliates and the then-current quantity of Employees and Contractors, Devices, or other applicable meter for such entities. Such notification shall be provided at either the next True Forward Event (if applicable) or within six (6) months of such change becoming effective, whichever occurs first.

12. Prior Purchases & Combined Discounts. The Cisco EA does not apply to and will not modify the terms of purchases of Cisco software, products or services made by You or Your Participating Affiliates prior to the Effective Date. The pricing, discounts, and other incentives offered as part of the Cisco EA may not be combined with any other price reductions, additional discounts, promotional pricing, rebates, credits, trade-in or other pricing programs or incentives Cisco may offer during the Term.

13. Internal Use Only. You and Your Participating Affiliates may use purchased Suites under your enrollment solely for Your internal business operations and not for any activities in which You or Your Participating Affiliates (i) provide third parties with access to the purchased Suites, including without limitation, as part of a service bureau, outsourcing, hosting, managed or any other provisioned service, or (ii) act as a reseller.

14. Delivery & Tax. Cisco will make electronically delivered Software available to You and Your Participating Affiliates in the transaction country of record and You are responsible for distributing such Software across Your organization. Software delivered on newly purchased Cisco hardware will be made available to You and Your Participating Affiliates at the address provided with the purchase order for the Cisco hardware, and for any such purchases of Cisco hardware You must use the Smart Account assigned to You by Cisco during the setup of Your Cisco EA. Usage of this Smart Account will ensure that EA-covered Software is priced appropriately. To the extent Software is delivered on Cisco hardware, Your tax or customs duty obligations for such hardware
may be inclusive of the value of the Software. Therefore, for importation purposes, the value indicated on importation documents may be higher than the transaction price of the hardware purchase.

15. **No Assignment and Transfer.** You and Your Participating Affiliates may not assign or transfer any rights, or obligations under these Program Terms, including by written agreement, merger, consolidation, divestiture, operation of law, or otherwise (including under Cisco's Software Transfer and Relicensing Policy), except with Cisco's prior written consent, such consent not to be unreasonably withheld.

16. **Export.** Cisco Software and Services are subject to local and extraterritorial export control laws and regulations. You, Your Participating Affiliates, and Cisco will comply with such laws and regulations governing use, export, re-export, and transfer of the Software and Services and will obtain all required local and extraterritorial authorizations, permits or licenses. The export obligations under this clause shall survive the expiration or termination of these Program Terms.

17. **End of Life Policy.** Cisco reserves the right to end of life any Software or Services in any Suite during the Term, consistent with Cisco's standard End of Life Policy, provided that the End of Life Policy does not modify Cisco's obligations under these Program Terms.

18. **Verification.** Upon reasonable request from Cisco, You will assist and make information available to Cisco to facilitate verification of the number of Services or Software licenses that You and Your Participating Affiliates have installed, accessed, deployed, or activated. In the event that Cisco's verification determines that You and Your Participating Affiliates have accessed Software or Services that You have not paid for, then You will be obligated to pay in accordance with Section 6 ("End User Information Form; Payment Obligations").

19. **Supplemental Terms; Order of Precedence.** Supplemental terms govern the Software and Services in the purchased Suite and will be identified in the applicable Suite Description. Software is governed by the Cisco End User License Agreement ("EULA") and any applicable supplemental end user license agreements ("SEULAs"). Cloud Services are governed by the Cisco Universal Cloud Agreement ("UCA") and any applicable offer descriptions. Support Services are governed by the applicable Service Descriptions. All supplemental terms are publicly available at www.Cisco.com. The Program Terms and applicable Suite Description take precedence in the event of a conflict with any of these supplemental terms.
Exhibit A: Definitions

The following definitions apply to the EA Program Terms and all Suites purchased under the Cisco EA.

"Affiliate" means any entity that one of us controls or controls one of us. “Control” means that entity (a) directly or indirectly owns more than 50% of one of us; or (b) has the ability to direct the affairs of one of us through any lawful means (e.g., a contract that allows control).

"Cisco" means Cisco Systems, Inc. or its applicable Affiliate offering the Program Terms.

"Cloud Services" means the Cisco hosted software-as-a-service included in Your purchased Suite and governed by the Cisco UCA and any applicable Cisco offer descriptions.

"Contractors" means non-Employees who (i) work on Your or Your Participating Affiliates’ behalf, (ii) whose work is under Your or Your Participating Affiliates' control or supervision pursuant to a consulting, staffing or other similar written contract, and (iii) have access to Your or Your Participating Affiliates’ systems or networks in the ordinary course of providing their services to You or Your Participating Affiliates.

"Devices" means computing, networking, or communications devices capable of running the Software or browser plug-ins associated with the Software, and which are owned or controlled by You or Your Participating Affiliates, as applicable.

"Employees" means full or part-time employees of You or Your Participating Affiliates, as applicable.

"End User", “You” or “Your” mean the final purchasing entity as identified on the EUIF.

"Participating Affiliates" means: (i) those Affiliates that are included in Your EUIF and for which You have paid the appropriate fee(s) to be included in this Cisco EA or You form with existing assets and employees transferred only from such Affiliates or (ii) those Affiliates that You acquire and add to the list of Participating Affiliates under the process set out in these Program Terms.

"Reseller" means the reseller authorized by Cisco to resell Suites under the Cisco EA.

"Smart Account" means the license management account provided to You by Cisco.

"Service Description" means the terms and conditions for the applicable Support Services.

"Services" means Cloud Services and Support Services included in Your purchased Suite.

"Software" means the Cisco software included in Your purchased Suite and governed by the Cisco EULA and any applicable Cisco SEULAs.

"Support Services" means the maintenance, technical support or other support services You have chosen for Your Suite.
Exhibit B: Suite Descriptions
Cisco DNA for Switching Suite

The Cisco DNA for Switching Suite includes the components listed below. Software in this Suite is governed by the Cisco EULA. You may not add or subtract any other Software or Services to or from the Suite. For clarity, You and Your Participating Affiliates may use any of the products listed below and will have access to them via the EA Workspace. As described in the EA Program Terms, any licenses You and Your Participating Affiliates access during the Term that are not identified in your EUIF will be charged to You via the True Forward process or, if applicable, under the Initial Growth Cap described below.

<table>
<thead>
<tr>
<th>Suite</th>
<th>Software</th>
<th>License Type</th>
<th>Meter</th>
<th>Growth Allowance</th>
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<tbody>
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<td>Cisco DNA for Switching</td>
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<td>- Visibility</td>
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<td></td>
<td>- DNA Essentials (Basic Automation &amp; Monitoring, Element Management, Full Netflow, Containers)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- IP Services</td>
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</tr>
<tr>
<td></td>
<td>- Cisco DNA Premier for Switching (includes all components in Cisco DNA Advantage for Switching)</td>
<td>Software (term-based)</td>
<td>Device licenses</td>
<td>None</td>
</tr>
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<td></td>
<td>- Stealthwatch</td>
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<td>Flows, Endpoints (Stealthwatch)</td>
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<td></td>
<td>- ISE Base + ISE Plus</td>
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<td>Nodes, Endpoints (ISE Base + ISE Plus)</td>
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</table>

Support Services

Support Services provided via Cisco Software Support Service and governed by the applicable Service Description.

Additional Suite Terms

The following additional terms apply to the use of the products and services included in the Cisco DNA for Switching Suite and take precedence over any conflicting Program Terms.

Growth Allowance and Initial Growth Cap

There is no growth allowance included in this Suite. During the first six (6) months of the Term, if the meter count exceeds more than one hundred and five percent (105%) of the Initial Meter Count identified in the EUIF ("Initial Growth Cap"), Cisco reserves the right to immediately adjust the scope of the Cisco EA by the amount of the Initial Growth Cap plus the overage. These additional corresponding fees will cover the period beginning at the time of the overage through the remainder of the Term.
True Forward Method
Your True Forward order will be based on unpaid for Software and Services (as measured by the meter(s) listed in
the tables above) that You or Your Participating Affiliates access in excess of Your initial purchase. To determine
your True Forward order, Cisco will use the EA Workspace as described in the Program Terms.

Outsourcing
If You and Your Participating Affiliates choose to outsource the operation, support and maintenance of your network
to a third-party outsourcing company or managed service provider, the Suite may not be deployed on or used for
hardware products owned or leased by the outsourcer/managed service provider. The Suite can only be deployed
or used on Devices owned or controlled by You and Your Participating Affiliates.
Cisco DNA for Wireless Suite

The Cisco DNA for Wireless Suite includes the components listed below. Software in this Suite is governed by the Cisco EULA. You may not add or subtract any other Software or Services to or from the Suite. For clarity, You and Your Participating Affiliates may use any of the products listed below and will have access to them via the EA Workspace. As described in the EA Program Terms, any licenses You and Your Participating Affiliates access during the Term that are not identified in your EUIF will be charged to You via the True Forward process or, if applicable, under the Initial Growth Cap described below.

<table>
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<td>- Cisco DNA Spaces SEE</td>
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<tr>
<td></td>
<td>• Access Point License</td>
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<tr>
<td></td>
<td>• Prime Infrastructure</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>• Cisco DNA Premier for Wireless (Includes all components in Cisco DNA Advantage for Wireless)</td>
<td>Software (term-based)</td>
<td>Device licenses (Cisco DNA Premier)</td>
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<tr>
<td></td>
<td>• ISE Base + ISE Plus</td>
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<td>Nodes, Endpoints (ISE)</td>
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</table>

Optional Licenses

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<th>Growth Allowance</th>
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</thead>
<tbody>
<tr>
<td>Stealthwatch Add-on</td>
<td>Stealthwatch</td>
<td>Flows, Endpoints, Effective Megaflo ws</td>
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<tr>
<td>Cisco DNA Spaces ACT Add-on</td>
<td>Cisco DNA Spaces ACT</td>
<td>Device licenses</td>
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</tbody>
</table>

Support Services

Support Services provided via Cisco Software Support Service and governed by the applicable Service Description.

Additional Suite Terms

The below terms apply to the use of the products and services included in the Cisco DNA for Wireless Suite and take precedence over any conflicting Program Terms.
Growth Allowance and Initial Growth Cap
There is no growth allowance included in this Suite. During the first six (6) months of the Term, if the meter count exceeds more than one hundred and five percent (105%) of the Initial Meter Count identified in the EIFF ("Initial Growth Cap"), Cisco reserves the right to immediately adjust the scope of the Cisco EA by the amount of the Initial Growth Cap plus the overage. These additional corresponding fees are payable immediately and will cover the period beginning at the time of the overage through the remainder of the Term.

True Forward Method
Your True Forward order will be based on unpaid for Software and Services (as measured by the meter(s) listed in the tables above) that You or Your Participating Affiliates access in excess of Your initial purchase. To determine your True Forward order, Cisco will use the EA Workspace as described in the Program Terms.

Outsourcing
If You and Your Participating Affiliates choose to outsource the operation, support and maintenance of your network to a third-party outsourcing company or managed service provider, the Suite may not be deployed on or used for hardware products owned or leased by the outsourcer/managed service provider. The Suite can only be deployed or used on Devices owned or controlled by You and Your Participating Affiliates.
Acknowledgement of Program Terms

I HAVE READ THE ENTERPRISE AGREEMENT PROGRAM TERMS ("PROGRAM TERMS"), INCLUDED ABOVE, AND UNDERSTAND THAT IN THE EVENT OF PURCHASE, THESE AGREEMENT TERMS APPLY TO THE SOFTWARE, SAAS, AND SERVICES AS DESCRIBED IN EXHIBIT B SUITE DESCRIPTIONS.

<table>
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CITY COUNCIL
Staff Report

Meeting Date: Nov. 19, 2019
To: Mayor and City Council
From: Scott Chadwick, City Manager
Staff Contact: Maria Callander, Director of Information Technology
Maria.Callander@carlsbadca.gov or 760-602-2454
Subject: Update on the City’s Digital Information Network

Recommended Action
Receive an informational presentation on the city’s current digital information network and its deficiencies, in preparation for a later presentation offering a proposed new and more robust network.

Executive Summary
The city of Carlsbad currently contracts with an outside vendor for the digital information network used by its employees. This service has not met the city’s needs and expectations and does not provide an adequate foundation for desired improvements and the city’s anticipated future demand.

Discussion
The network provides internet access, delivers email and powers many other critical business applications used by the city. It is basically the essential pipes that carry the data and information from one computer to another.

The demands on this system, known as a wide-area network, have steadily increased over the years as the city’s use of digital applications and data has grown.

Since 2016, the city has relied on a managed service provided under a contract for its wide-area network. The benefits that had been expected from contracting out this vital service have not been realized. City staff has noted the following deficiencies:

- Unreliability
- Significant delays in providing service, below what was promised
- Unscheduled outages
- Excessive need for city staff support to keep the system running properly

In addition, the network is outside the control of the city, so it cannot be readily adapted to meet Carlsbad’s anticipated future demand for a robust digital information network.
The city needs a robust digital network to develop a unified communication system and provide improved services to residents. Such a network would also provide the digital connectivity needed to continue to make technology driven improvements to other elements of the city's infrastructure.

**Fiscal Analysis**
This is an informational report only, so there is no fiscal impact from this item.

**Next Steps**
A second presentation on this topic will offer the City Council a proposed solution that staff believes would give Carlsbad the information technology infrastructure the city needs to achieve its digital goals.

**Environmental Evaluation (CEQA)**
Pursuant to Public Resources Code Section 21065, this action does not constitute a "project" within the meaning of CEQA in that it has no potential to cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and therefore does not require environmental review.

**Public Notification and Outreach**
This item was noticed in accordance with the Ralph M. Brown Act and was available for public viewing and review at least 72 hours prior to scheduled meeting date.

**Exhibits**
None
Memorandum

November 12, 2019

To: Cheryl Gerhardt, Purchasing Officer
From: Joe Stephenson, IT Operations Manager
Via: Maria Callander, IT Director
Re: Approve the exemption of competitive bidding and authorize sole source contract with Crown Castle Fiber, LLC.

Dear Cheryl,

The city entered into a license agreement with Crown Castle Fiber, LLC. In 2017 to allow Crown Castle the ability to install equipment on municipal facilities.

Language in that agreement allows the city to have access to four to six strands of fiber-optic assets for city use. In order to make use of this asset, the city must enter into additional agreements with Crown Castle.

Because the nature of this existing agreement with Crown Castle provides the city with an asset that would not be available via any type of competitive bid, I believe sole-sourcing Crown Castle Dark Fiber and Internet services would be in best interest of the city pursuant to Municipal Code section 3.28.110(B) and (N).
Thank you for your consideration. Please let me know if I can answer any further questions.

JS:bg

Approval for Exemption

Cheryl Gerhardt, Purchasing Officer

CC:  Maria Callander, IT Department Director
     Walter Chung, Deputy City Attorney
     Brent Gerber, Senior Management Analyst
     Shea Sainz, Senior Contract Administrator
Memorandum

November 12, 2019

To: Cheryl Gerhardt, Purchasing Officer
From: Joe Stephenson, IT Operations Manager
Via: Maria Callander, IT Director
Re: Approve the exemption of competitive bidding and authorize sole source contract with Magellan Advisors, LLC.

Dear Cheryl,

The city entered into a contract with Magellan Advisors on September 17, 2018. Pursuant to that contract, Magellan Advisors was and is providing broadband consulting services to the city for the implementation of a new fiber-optic network.

As the city begins work on implementing the network that Magellan has been consulting on, staff would like to retain Magellan for project management services.

Because Magellan Advisors has been involved in this project from inception and already has a very good understanding of the goals of the project, I believe sole-sourcing Magellan Advisors would be in best interest of the city pursuant to Municipal Code section 3.28.110(B) and (N).
Thank you for your consideration. Please let me know if I can answer any further questions.

JS:bg

Approval for Exemption

Cheryl Gerhardt, Purchasing Officer

CC: Maria Callander, IT Department Director
    Walter Chung, Deputy City Attorney
    Brent Gerber, Senior Management Analyst
    Shea Sainz, Senior Contract Administrator
Memorandum

November 12, 2019

To: Cheryl Gerhardt, Purchasing Officer
From: Joe Stephenson, IT Operations Manager
Via: Maria Callander, IT Director
Re: Approve the cooperative use of the NASPO ValuePoint agreement with Logicalis, LLC.

Dear Cheryl,

The IT Department would like to cooperatively use the NASPO ValuePoint Master Agreement #AR233 (14-19) and Cisco Participating Addendum CA #7-14-70-04 contract with Logicalis, LLC to provide for the purchase of Cisco networking products as well as implementation and support services.

This request is in the best interest of the City of Carlsbad as the city has standardized on Cisco networking hardware and Logicalis is a preferred vendor with Cisco. Additionally, Logicalis has worked with the city on other past projects that provides them unique understanding of our systems and goals.

Logicalis is a full-service vendor that provides for the procurement of software, hardware, licenses, support, maintenance and professional services for many of the IT Department’s needs.

By allowing the IT Department to contract with Logicalis, the city will be able to expediently acquire the Cisco products and services that are required by city staff to implement new Cisco hardware and software.

Information Technology Department
1635 Faraday Ave | Carlsbad, CA 92008 | 760-602-2450
Dec. 17, 2019
Thank you for your consideration. Please let me know if I can answer any further questions.

JS:bg

Approval for Exemption

Cheryl Gerhardt, Purchasing Officer

CC: Maria Callander, IT Department Director
Walter Chung, Deputy City Attorney
Brent Gerber, Senior Management Analyst
Shea Sainz, Senior Contract Administrator