

Carrier Wholesale Care E-DIA Ordering Guide for Fidium Fiber



ME, NH, VT (pages 2 – 42)

CA,IA,IL,KS,MN,MO,PA,TX,ND,SD,WI (pages 43 – 73)

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Carrier Ethernet Service E-DIA

Wholesale E-DIA is a CES product that consists of one UNI Physical Circuit and one Virtual Circuit.

- The physical order is used to build the physical UNI connection needed to support E-DIA service.
- The virtual order is used to build virtual EVC connection from the customer's physical premise to the internet.

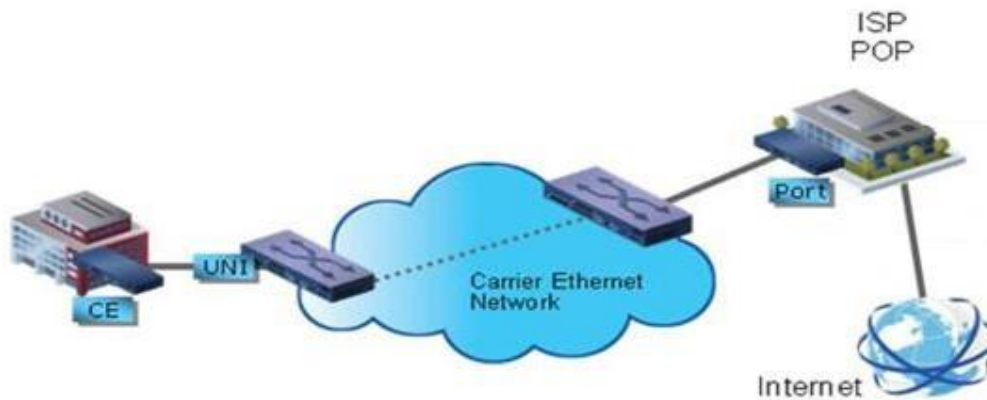


Figure 1 - E-DIA architecture

ASR Ordering Requirements for EDIA

Please use the following guidelines for processing a Carrier Ethernet Service E-DIA via an ASR:

EDIA is ordered via VFO and requires (2) orders, one for the physical circuit (UNI) and one for the EVC.

- Speed- E-DIA offers speeds ranging from 3Mbps-1Gbps
- ICSC Code is EC20
- E-DIA will be offered as Unmanaged Service Only.
- The Virtual circuit will be ordered as E-DIA on a separate ASR once the UNI circuit is in a confirm status. The EVC DDD must match the UNI DDD
- Block of /30 IP **WAN Addresses** is standard with all unmanaged EDIA circuits
- CoS is Standard and P-BIT is 1
- SPEC Code is “**VPEVCEA**” (required on both orders)
- PIU is 100
- Available in Maine, New Hampshire, Vermont
- Can be ordered along with CES ELINE

VTA

Term commitments are available for MTM, 12, 24, 36, 60 and 84 months.

The VTA field of the ASR is populated with the number of months desired for the term plan. A blank VTA field is Month to Month billing.

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PNUMs/ Contract ID

The contract IDs (**PNUM Field**) are required on all EDIA orders and for all Activities. The PNUM field of the ASR will drive the correct billing rates to the CABS bill.

The PNUM will be provided pre-order by your account manager.

If the PNUM field is blank on the ASR a TP Error will be generated and the order cannot be processed.

ASR Response - TP Errored			
PRACTICE REFNUM			
EVC_VCNUM UREF SUPI LREF			
OCC			
ASR FATAL AND NON-FATAL ERROR OR CLARIFICATION/NOTIFICATION REQUEST ERROR [Optional Condition			
FID		MSG_CODE	
MESSAGE			
PNUM is required for UNI, NNI and EVC orders.			

UNI Circuit ID

The UNI circuit code modifier is K*GN (K* is first two characters of the NC code)

*Examples of Q,F,R

82/84/88/ KQGN/123456/00/MJD/
82/84/88/ KFGN/765432/00/MJD/
82/84/88/ KRGN/765432/00/MJD/

EVC New Circuit ID

The EVC circuit service code modifier is **VLXG**.

10/**VLXG**/123456/22/MJD/

BAN

Your account manager will work with Carrier Wholesale Care (CWC) in acquiring a new BAN and will provide this information prior to orders being issued. The BAN is not state specific; the same BAN can be used for Maine, New Hampshire, and Vermont. If you require a BAN per state, a new BAN can be established per state. State specific BANs must be populated on any Service Orders submitted.

This service is offered from Fidium Enhanced with the BAN format of **FRP-ENH-00XX**.

If you already have a CES ELINE BAN, this BAN can also be used on the EDIA order and a new BAN is not required.

Project Field

The Project Field is required so all the orders will be worked together and to identify as EDIA. Fidium requires the customer to populate this field with their **ACNA** and **EDIA**.

For example: ABC-EDIA

CCNA CUS- Company Name-EDIA (Carrier-EDIA)

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Interval

The Standard Interval for CES E-DIA Service is 20 *business* days or more for the DDD.

Orders requiring special assembly will have an interval of Engineering Construction Completion Date (ECCD) plus the standard interval of 10 *business* days.

The 20 day interval applies for the Physical UNI. The EVC orders must be submitted with the same DDD as the UNI. The EVC order is submitted once the FOC for the UNI circuit is received. If the EVC is not received within 5 days of the UNI FOC, the order will be cancelled and cancellation charges will apply.

Installation Type	Circumstance	Target Interval
New Installation	All Facilities Exist	20 business days
New Installation	Facilities do NOT exist (MSE hardware required)	ECCD + 10 business days
New Installation	Facilities do NOT exist (construction required)	ECCD + 10 business days

GETO Field

If the GETO field is populated with a 'W' the **remarks field** on the ASR page must be populated to identify the installation of the demarcation.

If REMARKS is not populated along with the GETO field the order will go into TP Error in VFO with the error message below:

ASR Response - TP Errored

PRACTICE REFNUM

VCNUM UREF SUPI LREF

OCC

ASR FATAL AND NON-FATAL ERROR OR CLARIFICATION/NOTIFICATION REQUEST ERROR [Optional | Conditional]

FID MSG_CODE

MESSAGE

Indicate where demarcation extension will exist in the REMARKS field

PRACTICE REFNUM

VCNUM UREF SUPI LREF

OCC

Example of acceptable ASR Remarks:

MNCHNHCO	MNCHNHCO			
CCVN	ASC-EC	TSP	SAN	AFG SPEC
				VPEVCEA
REMARKS				
DEMARCATION REQUIRED.6183-2698-ESA1 POP HANDOFF 1000BASELX-SMF PLEASE EMAIL DLR OR UPDATES TO KK939G@ATT.COM EXT 1127				

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IP Addresses on UNI Order

Standard Block

Since E-DIA provides access to the Internet, Standard **WAN IP addresses** will be ordered on the UNI Circuit.

By default, each & every wholesale unmanaged EDIA will get a **/30 WAN Block**.

LAN IP Addresses

If **LAN IP Addresses** are required the following fields need to be populated on the SES form:

- IPAI
- IP_Address
- Subnet_Mask

These fields should be left **blank** if ordering standard **WAN** IP Address

- These fields are **required** if you are ordering **LAN** IP addresses and a Justification form and letter is also required.

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Use the chart below as an ordering guide:

VFO Field Name	Purpose	Value to be Populated
IPAI	Version of the Internet protocol address IPv4 1) – No Entry 2) – Populate when LAN IP's are required or provided	1) - Default is blank when no LAN IP's are required 2) – Value of '4' – When LAN IP's are Requested – currently offering IPv4
IP_Address	Identifies the Internet Protocol Address – 1) - Blank if no LAN IP's are Required 2) - LAN Block Requested by FIDIUM (FIDIUM Assigns) 3) - IP Address (Using customer LAN)	Valid entry is 1-15 numeric and special character of "." (period)" 1) - No entry 2) - 0.0.0.0 3) - 137.255.253.30 – example
Subnet Mask	Helps to identify if the carrier is asking for: 1- No LAN IP's required 2- Customer requesting IPs from Fidium 3- Customer provided LAN IP's that they want FIDIUM to route w/o BGP	1) - Field is Blank 2) – Provide appropriate Netmask. Example - 255.255.255.252 for /30, 255.255.255.248 for /29 3) – Provide appropriate Netmask for customer provided block – 255.255.255.248 – example



- At this time Fidium does not offer **IPv6**
- Need to provide **LOA** when requesting Fidium to route/ advertise customer owned IPs- Please send LOA to Fidium account manager or sales engineer
- Provide appropriate **Netmask** for the size block requested

Need to provide IP Justification letter for anything other than blank screen shot
Examples for requiring LAN IPs:

Fidium Assigns IP Address on UNI Order

If the customer wants Fidium to assign the IP addresses they will populate the field with a default of 0.0.0.0

The IPAI and SUBNET_MASK fields are also required.

SWITCHED ETHERNET SERVICES LOCATION SECTION [Optional Conditional]				
CCEA			GETO	GBTN
			--Select--	
GCON	GTEL	IP_ADDRESS		
		0.0.0.0		
IPAI	SUBNET_MASK	ESP	OTC	
4	255.255.255.252			

Customer Using Their LAN Block

If customer is using their own LAN block and requests Fidium to add a static route on our end (without BGP) they must populate the IP_Address field with their actual IP Address. The IPAI and SUBNET_MASK fields are also required.

SWITCHED ETHERNET SERVICES LOCATION SECTION [Optional Conditional]				
CCEA			GETO	GBTN
			--Select--	
GCON	GTEL	IP_ADDRESS		
		64.223.109.180		
IPAI	SUBNET_MASK	ESP	OTC	
4	255.255.255.252	CHVLMEME		

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Fidium IP Allocation Policy

Fidium currently designates a separate public WAN and LAN block for many of its services. The WAN block is /30 EDIA. If the order requests the default of WAN /30 no additional forms are required.

If the order requires an additional LAN IP or WAN IP address follow the policy below:

Due to our current IP Address inventory, the Fidium IPv4 allocation policy will allow all wholesalers to request LAN or WAN IP blocks up to a /29 (8 IPs, 6 Usable).

Small LAN

Fidium IP Management is looking for a single page statement on **company letterhead** signed from an officer of the customer organization (or similar) stating exactly what they would use the requested IP address space for.

CIDR	Subnet Mask	IPs	Typically Usable
/32	255.255.255.255	1	1
/31	255.255.255.254	2	2
/30	255.255.255.252	4	2
/29	255.255.255.248	8	6

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Large LAN

For larger LAN requests anything greater than a /28 (more than 16 IP's) should go through IP Management before any sales contracts are signed or orders entered and IP justification form will be required.

The following is a list of IP subnets between from 1 IP to 16 IPs. This is a reference and does not constitute a product list.

CIDR	Subnet Mask	IPs	Typically Usable
/32	255.255.255.255	1	1
/31	255.255.255.254	2	2
/30	255.255.255.252	4	2
/29	255.255.255.248	8	6
/28	255.255.255.240	16	14

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Example of Letter for Small LAN Request

On Company Letterhead:

Date

Company Name

Company Address

SUBJECT: Attestation of IP Justification

Dear Fidium,

Company Name is requesting X IP addresses to operate a number of public servers of routers.
Our devices are:

- 1 Mail Server/DNS Web Server
- 2 Development Web Servers
- 1 In-house Server for the company
- 1 VPN termination server for remote user access

I [Organizational Officer] attest to and certify the accuracy of the information contained in the IP Justification Form provided to Fidium for the purposes of requesting IP address space dated MM/DD/YYYY and signed by [Person completing IP Justification Form].

[Signature of Organizational Officer]

[Organizational Officer Name]

[Title]

[Company Name]

Example of Letter **for Large LAN IP Request**

A large IP request should be started before any sales contracts are signed for an assignment that is larger than a /28, Please collect the following information as soon as possible from the customer:

On Company letterhead:

[Date]

ACME Company

1 Cool Way

Suite 1000

Manchester, NH 03101

SUBJECT: Attestation of IP Justification

Dear Fidium,

ACME CO is requesting 30 IP addresses to operate a number of public servers or routers. Our devices are:

2 Mail Server/DNS server, 4 Development Web Servers, 2 In-house Server for the company website.

2 VPN termination servers for remote user access and 2 Firewall Routers

[Organizational Officer] attest to and certify the accuracy of the information contained in the IP Justification Form provided to Fidium for the purposes of requesting IP address space dated MM/DD/YYYY and signed by [Person completing IP Justification Form].

[Signature of Organizational Officer]

[Organizational Officer Name]

[Title]

[Company Name]

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ARIN

ARIN (American Registry for Internet Numbers) manages IP space for the North American region. (<http://www.arin.net/>)

Customers who qualify to procure their own IP blocks through the ARIN process should be advised to do so early in the sales process.

This includes ISPs and large enterprise customers as well as resellers. Please be aware that ARIN's review or allocation may take 3-4 weeks or longer.

Once the customer receives an allocation from ARIN, the customer may then request Fidium to route their IP addresses. Fidium will route and announce these blocks at traffic exchange/peering points; however, Fidium cannot guarantee that other providers will accept them.

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EVC EDIA Ordering Rules

For every EDIA UNI circuit (1) EVC is required. The bandwidths for EVC-EDIA is 3Mbps, 5Mbps, 10Mbps, 20Mbps, 50Mbps, 100Mbps, 150Mbps, 200Mbps, 300Mbps, 400Mbps, 500Mbps, 1Gbps

Ordering Rules for the EVC ASR through VFO:

- The EVC can be ordered as soon as the UNI circuit is in a confirm status.
- The EVC must be sent within 5 business days of the UNI FOC.
- The EVC order must have the same DDD as the UNI
- NC Code is VLD-
- SPEC- VPEVCEA
- NUT Field equals 1 on the EVC form - only (1) UNI connection
- The LoS is standard so the P-Bit is 1 on the EVC Form
- BDW field is required- number and megabits (M) or gigabits (G) EX: 5M
- New ASN field for BGP (Only required if customer is ordering BGP)
- If DNS is required must be in remarks (see DNS section)

Border Gateway Protocol (BGP) and ASN Field on EVC Order

Border Gateway Protocol (**BGP**) is a standardized exterior gateway protocol designed to exchange routing and reachability information among autonomous systems (AS) on the Internet.

This is **not** a standard offering so if the carrier requires BGP protocol this will be indicated on the **ASN** field of the EVC form.

This field will be **blank** if no BGP Protocol is required.

ASN	Identifies if BGP is need for the customer	To be filled with 10 variable characters e.g. 65004
-----	--	--

ETHERNET VIRTUAL CONNECTION UNI MAPPING DETAIL [Optional Conditional]						
UREF	EI	AUNT	UACT	RPON	NCI	
01	--Select-- ▼	--Select-- ▼	N ▼	CR4475TC02RETEST	02VLN.VP	
EVCSP	BUM_FD	RUID	RL	EVCMPID		
ARTNVTSC		88/KFGD/386792/00 /MJD /	--Select-- ▼			
OTC	ASN	VPN_ACT	VPN_ID	VPN_NM		
	12345	--Select-- ▼				

BGP DGF Form

If the ASN is populated, the customer must fill out a BGP DGF form with Fidium Sales Engineer. This form is always required when BGP is requested.

If customer owned IPs are being used then a customer provided LOA will be required in addition to the BGP DGF form.

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DNS in Remarks

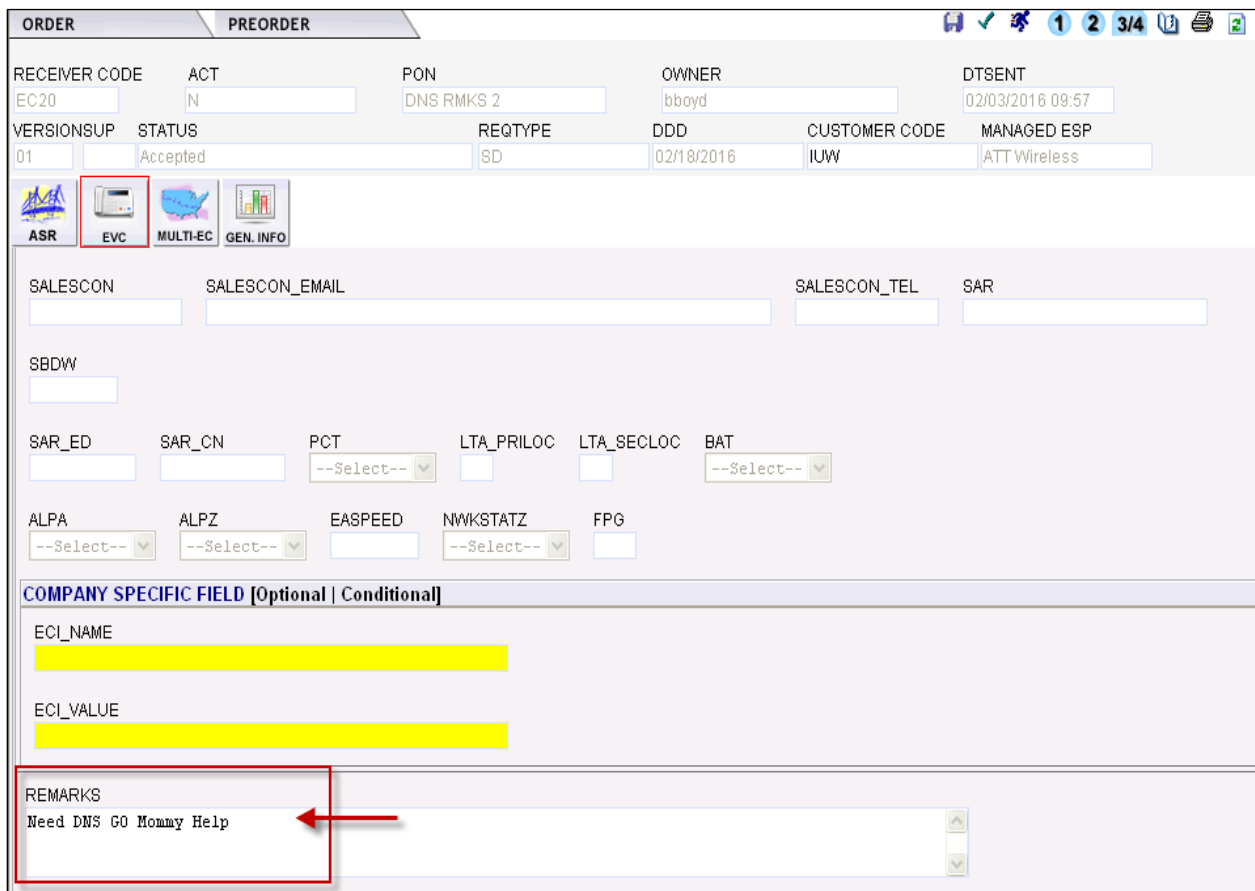
Domain Name Servers (**DNS**) is the Internet's equivalent of a phone book. They maintain a directory of domain names and translate them to Internet Protocol (IP) addresses.

If DNS is required, **or** a need to transition DNS to Fidium from your current ISP the DNS will be manually handled by Fidium's ISP group.

"DNS" verbiage must be in the remarks field of the EVC order.

Example

The DNS verbiage should be in the remarks of the EVC form:



ORDER PREORDER

RECEIVER CODE ACT PON OWNER DTSENT
EC20 N DNS RMKS 2 bboyd 02/03/2016 09:57

VERSIONSUP STATUS REQTYPE DDD CUSTOMER CODE MANAGED ESP
01 Accepted SD 02/18/2016 IUW ATT Wireless

ASR EVC MULTI-EC GEN. INFO

SALESCON SALESCON_EMAIL SALESCON_TEL SAR

SBDW

SAR_ED SAR_CN PCT LTA_PRILOC LTA_SECLOC BAT
--Select-- --Select-- --Select--

ALPA ALPZ EASPEED NWKSTATZ FPG
--Select-- --Select-- --Select--

COMPANY SPECIFIC FIELD [Optional | Conditional]

ECI_NAME

ECI_VALUE

REMARKS
Need DNS GO Mommy Help

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Rate-Adjustable Speeds

Rate Adjustable speeds are available for the **UNI** circuit. The Rate-Adjustable speed is indicated by the NC code.

If an EDIA Circuit is upgraded within the same rate-adjusted code such as from 20M KQE2 to 50M KQE5 the change can be done on a change order and retain the same circuit ID.

Rate Adjustable NC Codes

The NC codes applicable to rate-adjustable speeds are as follows:

1 Gig Port NC Codes

NC	Bandwidth	Rate Adjusted
KRE0	1000 Mbps	Rate-Adjusted from 1 Gig
KRE5	500 Mbps	Rate-Adjusted from 1 Gig
KRE4	400 Mbps	Rate-Adjusted from 1 Gig
KRE3	300 Mbps	Rate-Adjusted from 1 Gig
KRE2	200 Mbps	Rate-Adjusted from 1 Gig
KREB	150 Mbps	Rate-Adjusted from 1 Gig
KRE1	100 Mbps	Rate-Adjusted from 1 Gig
KRFJ	50 Mbps	Rate-Adjusted from 1 Gig
KRFD	20 Mbps	Rate-Adjusted from 1 Gig
KRFB	10 Mbps	Rate-Adjusted from 1 Gig
KRFA	5 Mbps	Rate-Adjusted from 1 Gig
KRF3	3 Mbps	Rate-Adjusted from 1 Gig

100 Mbps Port NC Codes

NC	Bandwidth	Rate Adjusted
KQE-	100 Mbps	Rate-Adjusted from 100 Mbps
KQE5	50 Mbps	Rate-Adjusted from 100 Mbps
KQE2	20 Mbps	Rate-Adjusted from 100 Mbps
KQE1	10 Mbps	Rate-Adjusted from 100 Mbps
KQEJ	5 Mbps	Rate-Adjusted from 100 Mbps
KQEN	3 Mbps	Rate-Adjusted from 100 Mbps

NC/NCI/SECNCI Codes

The CES NC/NCI/SECNCI codes are listed by Auto-Negotiated and Non-Auto Negotiated.

Fidium's default is **Auto-Negotiated**, if **Non-Auto-Negotiated** is required use the applicable Codes from below the list.

AUTO Negotiated

UNI Standard (No Collocation)

UNI Standard (NC/NCI)		Codes/SECNCI (no Collocation)			
	Port Speed (Mbps)			Optical -Multi-mode Fiber - 850nm - 50 microns	Optical Single-mode Fiber -1310
		100Base-TX	1000Base-T	1000Base-SX	1000Base-LX10
	3	KQEN/04LN9.1CA/04CX9.1CT	KRF3/08LN9.1GA/08CX9.1GE	KRF3/02LNF.AA4/02CXF.1GE	KRF3/02LNF.AA2/02CXF.1GE
	5	KQEJ/04LN9.1CA/04CX9.1CT	KRFA/08LN9.1GA/08CX9.1GE	KRFA/02LNF.AA4/02CXF.1GE	KRFA/02LNF.AA2/02CXF.1GE
	10	KQE1/04LN9.1CA/04CX9.1CT	KRFB/08LN9.1GA/08CX9.1GE	KRFB/02LNF.AA4/02CXF.1GE	KRFB/02LNF.AA2/02CXF.1GE
	20	KQE2/04LN9.1CA/04CX9.1CT	KRFD/08LN9.1GA/08CX9.1GE	KRFD/02LNF.AA4/02CXF.1GE	KRFD/02LNF.AA2/02CXF.1GE
	50	KQE5/04LN9.1CA/04CX9.1CT	KRFJ/08LN9.1GA/08CX9.1GE	KRFJ/02LNF.AA4/02CXF.1GE	KRFJ/02LNF.AA2/02CXF.1GE
	100	KQE-/04LN9.1CA/04CX9.1CT KEE-/04LN9.1CA/04CX9.1CT (KEE- is Not rate adjusted)	KRE1/08LN9.1GA/08CX9.1GE	KRE1/02LNF.AA4/02CXF.1GE	KRE1/02LNF.AA2/02CXF.1GE
	150	N	KREB/08LN9.1GA/08CX9.1GE	KREB/02LNF.AA4/02CXF.1GE	KREB/02LNF.AA2/02CXF.1GE
	200	N	KRE2/08LN9.1GA/08CX9.1GE	KRE2/02LNF.AA4/02CXF.1GE	KRE2/02LNF.AA2/02CXF.1GE
	300	N	KRE3/08LN9.1GA/08CX9.1GE	KRE3/02LNF.AA4/02CXF.1GE	KRE3/02LNF.AA2/02CXF.1GE
	400	N	KRE4/08LN9.1GA/08CX9.1GE	KRE4/02LNF.AA4/02CXF.1GE	KRE4/02LNF.AA2/02CXF.1GE
	500	N	KRE5/08LN9.1GA/08CX9.1GE	KRE5/02LNF.AA4/02CXF.1GE	KRE5/02LNF.AA2/02CXF.1GE
	1000	N	KRE0/08LN9.1GA/08CX9.1GE KFE-/08LN9.1GA/08CX9.1GE (KFE- is Not-rate adjusted)	KRE0/02LNF.AA4/02CXF.1GE KFE-/02LNF.AA4/02CXF.1GE (KFE- is Not-rate adjusted)	KRE0/02LNF.AA2/02CXF.1GE KFE-/02LNF.AA2/02CXF.1GE (KFE- is Not rate adjusted)



20M and below requires an ICB for fiber

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Without AUTO Negotiated

UNI Standard (No Collocation)

UNI Standard (NC/NCI Codes/SECNCI) (no Collocation)					
Port Speed (Mbps)				Optical -Multi-mode Fiber - 850nm - 50 microns	Optical Single-mode Fiber -1310nm
		100Base-TX	1000Base-T	1000Base-SX	1000Base-LX10
3	KQEN/04LN9.1CT/04CX9.1CT	KRF3/08LN9.1GE/08CX9.1GE	KRF3/02LNF.A04/02CXF.1GE	KRF3/02LNF.A02/02CXF.1GE	
5	KQEJ/04LN9.1CT/04CX9.1CT	KRFA/08LN9.1GE/08CX9.1GE	KRFA/02LNF.A04/02CXF.1GE	KRFA/02LNF.A02/02CXF.1GE	
10	KQE1/04LN9.1CT/04CX9.1CT	KRFB/08LN9.1GE/08CX9.1GE	KRFB/02LNF.A04/02CXF.1GE	KRFB/02LNF.A02/02CXF.1GE	
20	KQE2/04LN9.1CT/04CX9.1CT	KRFD/08LN9.1GE/08CX9.1GE	KRFD/02LNF.A04/02CXF.1GE	KRFD/02LNF.A02/02CXF.1GE	
50	KQE5/04LN9.1CT/04CX9.1CT	KRFJ/08LN9.1GE/08CX9.1GE	KRFJ/02LNF.A04/02CXF.1GE	KRFJ/02LNF.A02/02CXF.1GE	
100	KQE-/04LN9.1CT/04CX9.1CT KEE-/04LN9.1CT/04CX9.1CT (KEE- is Not rate adjusted)	KRE1/08LN9.1GE/08CX9.1GE	KRE1/02LNF.A04/02CXF.1GE	KRE1/02LNF.A02/02CXF.1GE	
150	N	KREB/08LN9.1GE/08CX9.1GE	KREB/02LNF.A04/02CXF.1GE	KREB/02LNF.A02/02CXF.1GE	
200	N	KRE2/08LN9.1GE/08CX9.1GE	KRE2/02LNF.A04/02CXF.1GE	KRE2/02LNF.A02/02CXF.1GE	
300	N	KRE3/08LN9.1GE/08CX9.1GE	KRE3/02LNF.A04/02CXF.1GE	KRE3/02LNF.A02/02CXF.1GE	
400	N	KRE4/08LN9.1GE/08CX9.1GE	KRE4/02LNF.A04/02CXF.1GE	KRE4/02LNF.A02/02CXF.1GE	
500	N	KRE5/08LN9.1GE/08CX9.1GE	KRE5/02LNF.A04/02CXF.1GE	KRE5/02LNF.A02/02CXF.1GE	
1000	N	KRE0/08LN9.1GE/08CX9.1GE KFE-/08LN9.1GE/08CX9.1GE (KFE- is Not rate adjusted)	KRE0/02LNF.A04/02CXF.1GE KFE-/02LNF.A04/02CXF.1GE (KFE- is Not-rate adjusted)	KRE0/02LNF.A02/02CXF.1GE KFE-/02LNF.A02/02CXF.1GE (KFE- is Not rate adjusted)	



20M and below requires an ICB for fiber

NC Codes for EVC

NC	NCI
VLD-	02VLN.A2

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IP Addresses Sheet

The CWC Representative will email the Fidium IP information. This is an example of a IP Address sheet. All IP Addresses will be applied to the sheet.

Service Address	1 Anywhere St, Portland, ME 04103	
Circuit ID	10/VLXG/123456/22/MJD/	
Internet Data Rate	100	Mbps

IP Assignments

WAN Subnet

Note: WAN Router IP is the IP address which is required on the customer router/PC/device's interface facing the Fairpoint provided equipment.

Fairpoint
Internet Router



WAN Default GW

WAN

(EDIA Service)



WAN Router IP

LAN Default GW

Available LAN Addresses

LAN Subnet

Note: LAN Default GW equates to the first usable IP address for the LAN Subnet provided to the customer. It is a suggested value only, and can be any usable IP address in the LAN Subnet. If the customer is utilizing NAT to route to a private subnet, this is not necessary.

LAN

DNS Information

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Order Examples

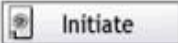
This service is order through VFO. The ASR Service type forms available in VFO are from the latest ASOG releases relating to Ethernet Service.

To Order the UNI in VFO

- Use Service Type “**End User Switched Ethernet**”
- ICSC= **EC20**
- Activity = **N**

Order Initiation

Managed ESP	FAIRPOINT_NNE	
Order Number	YOUR.PON.UNI	☐ Tracking
Receiver Code	EC20	Enhanced Communications of Northern New England Inc
Version	01	
Guideline Version	52	
Type of Request	Firm Order	
Service	End User Switched Ethernet	
Activity	N	
Template	--None Available--	




UNI Order Example

ICSC	EC20
ASR Tab / Section	ASR field entry value
CCNA (Customer Carrier Name Abbreviation)	XXX
DDD (Desire Due Date)	20 Business Days or More
Project (Project ID)	XXX EDIA
REQTYP (ASR Request Type)	ED
ACT (ASR Activity)	N
SEI	Y
QSA	01
RTR (Response type)	F- FOC Only
Customer Name	Optional
CKR (Customer's CKT ID)	Optional
PIU (Percentage Interstate Usage)	100
BAN (Billing Account Number)	E
SPEC (LOS Indicator)	VPEVCEA
ASR_REMARKS	Add remarks and demarc information if GETO field is populated
BILLNM (Billing Name)	XXX Company
SBILLNM (ASR/Bill Section)	
ACNA (Access Customer Name)	XXX
FUSF (Federal Universal Service Fee)	N or E
BILL_STR (ASR/Bill Section)	XXX
BILL_CITY (ASR/Bill Section)	XXX
BILL_STATE (ASR/Bill Section)	XXX
BILL_ZIP (ASR – Bill Section)	99999
BILLCON (ASR – Bill Section)	Bill Contact
BILL_Tel	TN
Bill Contact Email	email
VTA (Variable Term Plan)	12, 24, 36, 60, 84 or Blank for M2M
PNUM (Promotion Number)	contract number
INIT (ASR/Contact)	Input your name
INITIATOR_TEL (ASR/Contact)	Input your contact telephone #
INITIATOR_EMAIL	Input your email address
DSGCON (ASR/Contact)	Input name
DSGCON_TEL (ASR/Contact)	Input telephone #
IMPCON (ASR/Contact)	Input depart or name
IMPCON_TEL (ASR/Contact)	Input telephone #

SES Form

NC (Network Channel Code)	See NC Code List
NCI (Network Channel Interface)	See NC Code List
SECNCI (Secondary Network Channel Interface Code)	See NC Code List
GETO	Optional if extended wiring is required
IP_Address	Only populated if ordering LAN IP Addresses
IPAI	Only populated if ordering LAN IP Addresses
SUBNET_MASK	Only populated if ordering LAN IP Addresses
ESP	Blank on New Order, required on Change Order
PI (Primary Location Indicator)	Y
EUNAME (End User Name)	End User
SANO (Address Number)	999
SASF (Address Number Suffix)	
SASN (Street Name)	Anystreet
SATH (Street Type)	St
CITY (EUSA)	Anytown
STATE (EUSA)	ME
ZIP (EUSA)	99999
AAI	Additional installation information
LCON (Local Contact)	Input your LCON name First and Last
ACTEL (EUSA)	Input your LCON Phone #
JS (Jack Status)	D or N

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EVC Order

To Order the EVC in VFO

Use Service Type **"Standalone EVC"**

ICSC= **EC20**

Activity = **N**

Order Initiation

Managed ESP	FAIRPOINT_NNE	
Order Number	YOUR.PON.EVC	☐ Tracking
Receiver Code	EC20	Enhanced Communications of Northern New England Inc
Version	01	
Guideline Version	52	
Type of Request	Firm Order	
Service	Standalone EVC	
Activity	--Select One--	
Template	--None Available--	

Initiate
Cancel

EVC Order Example

ASR Tab / Section	ASR field entry value
ICSC	EC20
CCNA (ASR/Administrative)	XXX
DDD	Same as UNI
Project (ASR/Administrative)	XXX EDIA
REQTYP (ASR/Administrative)	SD
ACT (ASR/Administrative)	N
EVC1	A
RTR (ASR/Administrative)	F
PIU (ASR/Administrative)	100
QTY (ASR/Administrative)	1
BAN (ASR/Administrative)	E
BILLNM (ASR/Bill Section)	XXX Company
SBILLNM (ASR/Bill Section)	
ACNA (ASR/Bill Section)	XXX
VTA	Term from contract
FUSF (ASR/Bill Section)	E
BILL_STR (ASR/Bill Section)	
PNUM	Contract ID
BILL_CITY (ASR/Bill Section)	Billing Address
BILL_STATE (ASR/Bill Section)	Billing Address
BILL_ZIP (ASR – Bill Section)	Billing Address
BILLCON (ASR – Bill Section)	Billing Contact
BILLCON_TEL(ASR/Bill Section)	
INIT (ASR/Contact)	required
INITIATOR_TEL (ASR/Contact)	required
DSGCON (ASR/Contact)	required
DSGCON_TEL (ASR/Contact)	required
IMPCON (ASR/Contact)	required
IMPCON_TEL (ASR/Contact)	required
Remarks	Description of order

1. The fields **required** to be populated in the EVC tab are:

EVCNUM (EVC)	0001
NC (EVC)	VLD-
NUT (EVC)	01

ETHERNET VIRTUAL CONNECTION UNI MAPPING DETAIL 1

UREF (EVC)	01
UACT(EVC)	N
NCI (EVC)	02VLN.A2
EVCSP (EVC)	UNI SWC from FOC
RUID (EVC)	UNI Circuit ID from FOC
ASN	Only populated if ordering BGP Protocol
LEFREF (EVC)	1
LOSACT (EVC)	N
SPEC	VPEVCEA
P-BIT	1
BDW (EVC)	Bandwidth

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UNI Conversions and Upgrades/Downgrades

When a customer requests an upgrade/downgrade to the UNI access line speed, same location, within the same adjustable rate, this can be done on a Change order.

- A Change order is allowed if no equipment change is required.
- If Equipment change is required a Disconnect and New Order is needed
- A change order for both the UNI and EVC is required.

Change Order Intervals: Please contact Service Manager to determine if equipment change is required.

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Change Order to Add LAN IP Addresses

Additional LAN IP Addresses can be ordered as a change order. Two orders are required:

- EVC Order
- UNI Order

A change order on the **UNI** circuit is required with the applicable fields:

- IPAI
- IP_Address
- Subnet_Mask

Additional LAN IP's will require an IP justification letter.

EVC Order

Both orders can be issued through VFO on the same day, but the EVC order is required first, then the UNI.

Both orders must have the same Due Date.

ACT= C on both orders

Add remarks to both orders "adding LAN IPs".

Example of UNI and EVC Change order to add IP Addresses

The fields **required** to be populated on the ASR tab are below.

ICSC	EC20
ASR Tab / Section	ASR field entry value
PON	Purchase Order Number
CCNA (Customer Carrier Name Abbreviation)	ABC
DDD (Desire Due Date)	5 Business Days
Project (Project ID)	ACNA or Company Name-EDIA-C
REQTYP (ASR Request Type)	ED
ACT (ASR Activity)	C
SEI	Y
QSA	01
RTR (Response type)	F- FOC Only
Customer Name	Optional
CKR (Customer's CKT ID)	Optional
PIU (Percentage Interstate Usage)	100
ECCKT	UNI Circuit ID
BAN (Billing Account Number)	E
SPEC (LOS Indicator)	VPEVCEA
ASR_REMARKS	Please assign additional LAN IP /XX
BILLNM (Billing Name)	Company Name
SBILLNM (ASR/Bill Section)	
ACNA (Access Customer Name)	XXX
FUSF (Federal Universal Service Fee)	E
BILL_STR (ASR/Bill Section)	XX
BILL_CITY (ASR/Bill Section)	XX
BILL_STATE (ASR/Bill Section)	XX
BILL_ZIP (ASR – Bill Section)	XX
BILLCON (ASR – Bill Section)	XX
BILL_Tel	9999999999
Bill Contact Email	XXX
VTA (Variable Term Plan)	XX
PNUM (Promotion Number)	required
INIT (ASR/Contact)	XXXXX
INITIATOR_TEL (ASR/Contact)	9999999999
INITIATOR_EMAIL	XXXX
DSGCON (ASR/Contact)	
DSGCON_TEL (ASR/Contact)	
IMPCON (ASR/Contact)	XXXXX
IMPCON_TEL (ASR/Contact)	9999999999

2. Below are the **required** fields to be populated on the SES tab in VFO for the UNI circuit at the End User Address:

NC (Network Channel Code)	Same as initial order
NCI (Network Channel Interface)	Same as initial order
SECNCI	Same as initial order
IP_Address	See page 11 of Document
IPAI	See page 11 of Document
SUBNET_MASK	See page 11 of Document
ESP	SWC of End User (CLLI Code)
PI (Primary Location Indicator)	Y
EUNAME (End User Name)	End User Name
SANO (Address Number)	1
SASN (Street Name)	Any
SATH (Street Type)	St
CITY (EUSA)	Anytown
STATE (EUSA)	ME
ZIP (EUSA)	00000
LCON (Local Contact)	Name
ACTEL (EUSA)	9999999999
LCON EMAIL	required

EVC Change Order to Add IP Addresses

1. The fields **required** to be populated on the ASR tab are below.
2. Please add any fields that are not represented.

ASR Tab / Section	ASR field entry value
ICSC	EC20
PON	Purchase Order Number
CCNA (ASR/Administrative)	ABC
DDD	5 Business Days
Project (ASR/Administrative)	ACNA or Company Name-EDIA-C
REQTYP (ASR/Administrative)	SD
ACT (ASR/Administrative)	C
Customer	Company Name
EVCI	A
RTR (ASR/Administrative)	F
PIU (ASR/Administrative)	100
QTY (ASR/Administrative)	1
BAN (ASR/Administrative)	E
Remarks	Please assign additional LAN IP /XX
BILLNM (ASR/Bill Section)	Bill Name
SBILLNM (ASR/Bill Section)	
ACNA (ASR/Bill Section)	ABC
FUSF (ASR/Bill Section)	E
BILL_STR (ASR/Bill Section)	XX
BILL_CITY (ASR/Bill Section)	XX
BILL_STATE (ASR/Bill Section)	XX
BILL_ZIP (ASR – Bill Section)	XX
BILLCON (ASR – Bill Section)	XX
BILLCON_TEL(ASR/Bill Section)	9999999999
BILLCON EMAIL	XXX
VTA	XX
PNUM	required
INIT (ASR/Contact)	XXXXX
INITIATOR_TEL (ASR/Contact)	9999999999
INIT EMAIL	XXXX
DSGCON (ASR/Contact)	
DSGCON_TEL (ASR/Contact)	
IMPCON (ASR/Contact)	XXXXX
IMPCON_TEL (ASR/Contact)	9999999999

3. The fields **required** to be populated in the EVC tab are:

EVCNUM (EVC)	0001
NC (EVC)	VLD-
EVCID	EVC Circuit ID
NUT (EVC)	01

ETHERNET VIRTUAL CONNECTION UNI MAPPING DETAIL 1

UREF (EVC)	01
UACT(EVC)	C
NCI (EVC)	02VLN.V
EVCSP (EVC)	SWC CLLI Code
RUID (EVC)	UNI Circuit ID
LEFREF (EVC)	1
LOSACT (EVC)	N
SPEC	VPEVCEA
P-BIT	X
BDW (EVC)	XXM



Add remarks on both orders to add additional LAN IP

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New E-DIA Port Speeds



To keep up with demands for Ethernet bandwidth starting September 1st, 2018 new speeds for E-DIA service is being introduced. The new speeds are greater than 1Gig and the **Port is 10G**.

New Speeds:

- 1G with 10G Port
- 2G
- 2.5G
- 3G
- 4G
- 5G
- 10G

UNI Circuit ID

These new speeds will have a new circuit ID service code of “KS”

82/84/88/ **KSGN**/123456/00/MJD/

NC Codes

Auto Negotiated On

Port Speed	Optical -Multi-mode Fiber 850nm - 50 microns	Optical Single-mode Fiber -1310
1G (10G Port)	KSE1/02LNF.AA4/02CXF.10G	KSE1/02LNF.AA2/02CXF.10G
2G	KSE2/02LNF.AA4/02CXF.10G	KSE2/02LNF.AA2/02CXF.10G
2.5G	KSED/02LNF.AA4/02CXF.10G	KSED/02LNF.AA2/02CXF.10G
3G	KSE3/02LNF.AA4/02CXF.10G	KSE3/02LNF.AA2/02CXF.10G
4G	KSE4/02LNF.AA4/02CXF.10G	KSE4/02LNF.AA2/02CXF.10G
5G	KSE5/02LNF.AA4/02CXF.10G	KSE5/02LNF.AA2/02CXF.10G
10000 (10G)	KSE-/02LNF.AA4/02CXF.10G KGE-/02LNF.AA4/02CXF.10G (KGE- is not rate adjusted)	KSE-/02LNF.AA2/02CXF.10G KGE-/02LNF.AA2/02CXF.10G (KGE- is not rate adjusted)

Auto Negotiated Off

Port Speed	Optical -Multi-mode Fiber 850nm - 50 microns	Optical Single-mode Fiber -1310
1G (10G Port)	KSE1/02LNF.A04/02CXF.10G	KSE1/02LNF.A02/02CXF.10G
2G	KSE2/02LNF.A04/02CXF.10G	KSE2/02LNF.A02/02CXF.10G
2.5G	KSED/02LNF.A04/02CXF.10G	KSED/02LNF.A02/02CXF.10G
3G	KSE3/02LNF.A04/02CXF.10G	KSE3/02LNF.A02/02CXF.10G
4G	KSE4/02LNF.A04/02CXF.10G	KSE4/02LNF.A02/02CXF.10G
5G	KSE5/02LNF.A04/02CXF.10G	KSE5/02LNF.A02/02CXF.10G
10000 (10G)	KSE-/02LNF.A04/02CXF.10G KGE-/02LNF.A04/02CXF.10G (KGE- is not rate adjusted)	KSE-/02LNF.A02/02CXF.10G KGE-/02LNF.A02/02CXF.10G (KGE- is not rate adjusted)

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PNUMs

No changes to the PNUM format. The contract pricing PNUMs still apply.

CNE Case

A CNE case is required. If the CNO field is blank and the CNE case is not referenced in remarks send a clarification back to the customer **requesting the CNE case number**.

M6 Provisioning

There will be no changes to the current CES provisioning plans.

Interval

The Standard Interval for CES E-DIA Service is 20 *business* days or more for the DDD.

Orders requiring special assembly will have an interval of Engineering Construction Completion Date (ECCD) plus the standard interval of 10 *business* days.

The 20 day interval includes the Physical UNI and the EVC orders. The Customer will submit their EVC order after the FOC for the UNI circuit is received. If the EVC is not received within 5 days post FOC, the order will be cancelled and cancellation charges will apply.

Installation Type	Circumstance	Target Interval
New Installation	All Facilities Exist	20 business days
New Installation	Facilities do NOT exist (MSE hardware required)	ECCD + 10 business days
New Installation	Facilities do NOT exist (construction required)	ECCD + 10 business days

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USOCs

UNI Speed	Port	Rate Adj	NC	COS	USOC	USOC Description
1 Gbps	10 Gbps	Y	KSE1	EKRLX	EYRXU EYJXU	Port Access Line
2 Gbps	10 Gbps	Y	KSE2	EKXAX	EYRXU EYJXU	Port Access Line
2.5 Gbps	10 Gbps	Y	KSED	EKXBX	EYRXU EYJXU	Port Access Line
3 Gbps	10 Gbps	Y	KSE3	EKXCX	EYRXU EYJXU	Port Access Line
4 Gbps	10 Gbps	Y	KSE4	EKXDX	EYRXU EYJXU	Port Access Line
5 Gbps	10 Gbps	Y	KSE5	EKRMX	EYRXU EYJXU	Port Access Line
10 Gbps	10 Gbps	y	KSE-	EKRNX	EYRXU EYJXU	Port Access Line
10 Gbps	10 Gbps	N	KGE-	EKRNX	EYRXU EYJXU	Port Access Line

EVC USOCs

DESCRIPTION	USOC	EVC Billing COS
1 GBPS BDW – EDIA EVC	EEBL1	EO1DX
2 GBPS BDW - EDIA EVC	EEUAX	EO1DX (EDIA)
2.5 GBPS BDW - EDIA EVC	EEUBX	EO1DX (EDIA)
3 GBPS BDW - EDIA EVC	EEUCX	EO1DX (EDIA)
4 GBPS BDW - EDIA EVC	EEUDX	EO1DX (EDIA)

Change Orders for New Speeds

- UNI speed upgrade, Interval is 15 Business days or ECCD plus 6.
- When a customer requests a speed upgrade at the same address and is within the same adjustable rate, this usually can be done on a Change order. Same rate adjustable speeds are the "KS" NC codes.
- An upgrade from a 3M to 1G (1G Port) to one of the new speeds is a D/N.

Order Example UNI 2G EDIA

ICSC	EC20
ASR Tab / Section	ASR field entry value
CCNA (Customer Carrier Name Abbreviation)	ABC
DDD (Desire Due Date)	20 Business Days or More
Project (Project ID)	ABC- EDIA-N
REQTYP (ASR Request Type)	ED
ACT (ASR Activity)	N
SEI	Y
QSA	01
RTR (Response type)	F- FOC Only
Customer Name	Optional
CKR (Customer's CKT ID)	Optional
PIU (Percentage Interstate Usage)	100
BAN (Billing Account Number)	E
SPEC (LOS Indicator)	VPEVCEA
ASR_REMARKS	New 2G EDIA
BILLNM (Billing Name)	ABC Company
SBILLNM (ASR/Bill Section)	
ACNA (Access Customer Name)	ABC
FUSF (Federal Universal Service Fee)	N or E
BILL_STR (ASR/Bill Section)	XXX
BILL_CITY (ASR/Bill Section)	XXX
BILL_STATE (ASR/Bill Section)	XXX
BILL_ZIP (ASR – Bill Section)	99999
BILLCON (ASR – Bill Section)	Bill Contact
BILL_Tel	TN
Bill Contact Email	email
VTA (Variable Term Plan)	24
PNUM (Promotion Number)	1018.LX
INIT (ASR/Contact)	Input your name
INITIATOR_TEL (ASR/Contact)	Input your contact telephone #
INITIATOR_EMAIL	Input your email address
DSGCON (ASR/Contact)	Input name
DSGCON_TEL (ASR/Contact)	Input telephone #
IMPCON (ASR/Contact)	Input depart or name
IMPCON_TEL (ASR/Contact)	Input telephone #

SES Form

NC (Network Channel Code)	KSE2
NCI (Network Channel Interface)	02LNF.AA4
SECNCI (Secondary Network Channel Interface Code)	02CXF.10G
IP_Address	Only populated if ordering LAN IP Addresses
IPAI	Only populated if ordering LAN IP Addresses
SUBNET_MASK	Only populated if ordering LAN IP Addresses
ESP	
PI (Primary Location Indicator)	Y
EUNAME (End User Name)	End User
SANO (Address Number)	139
SASF (Address Number Suffix)	
SASN (Street Name)	State
SATH (Street Type)	St
CITY (EUSA)	Augusta
STATE (EUSA)	ME
ZIP (EUSA)	04330
AAI	Install in telecom room
LCON (Local Contact)	Input your LCON name First and Last
ACTEL (EUSA)	Input your LCON Phone #
JS (Jack Status)	D



If the GETO field is populated with a “W” the remarks must contain the Jack Installation information or the ASR will get a Clarification Error.

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Ethernet Dedicated Internet Access

Wholesale E-DIA is an Ethernet product that consists of one UNI Physical Circuit and one Virtual Circuit.

- The physical order is used to build the physical UNI connection needed to support E-DIA service.
- The virtual order is used to build virtual EVC connection from the customer's physical premise to the internet.

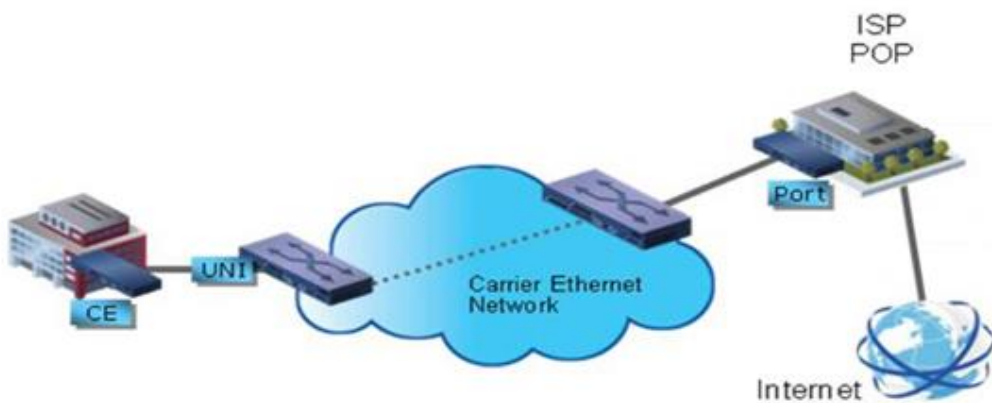


Figure 1 - E-DIA architecture

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Application

This ordering guide applies to the following ICSC codes within Fidium:

ICSC	Company Name
CC05	Consolidated Comm Telecom SVCs, Mattoon, IL
ET02	Enventis Telecom (aka Minnesota Pwer Telecom), Duluth, MN
EV10	Consolidated Missouri
FB01	Consolidated Comm of Fort Bend, Irving, TX
IC90	Illinois Consolidated Tel, Mattoon, IL
IO10	Ideaone Telecom Group LLC, Fargo, ND
LF10	Consolidated Comm of Texas Company, Lufkin, TX
MK01	Mankato Citizens Tel Co, Mankato, MN (Tandem services only)
NP05	North Pittsburg Telco, Gibsonia, PA Cranberry TWSP, PA
PT30	Penn Telecom Inc, CLEC PA
RS02	Surewest Telephone, Citrus Heights, CA

If you need to order E-DIA service in our New England states of Maine, New Hampshire, Vermont, please access the E-DIA ordering guide for these states, which can be found at the top of this document:

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ASR Ordering Requirements for E-DIA

Please use the following guidelines for processing a Carrier Ethernet Service E-DIA via an ASR:

E-DIA is ordered via VFO and requires (1) UNI order and one EVC. Combo order is not available with REQ TYP DD.

- REQ TYP is DD 
- Service Type is “Dedicated_Internet_Service”
- REQ TYP DD creates a COMBO order in our provisioning system
- REQ TYP DD has a “DIS” form that replaces the “SES” form
- New Field “EU” is required with a “Y” to indicate End User
- Contract (MSA) is required
- Speed- E-DIA offers speeds ranging from 3Mbps-100Gbps
- Block of /30 IP WAN Addresses is standard with all E-DIA circuits
- Additional LAN IPs can be ordered on the initial order and an IP justification form is required
- SPEC Code “VPEVCEA” is optional
- PIU is 100
- VTA required



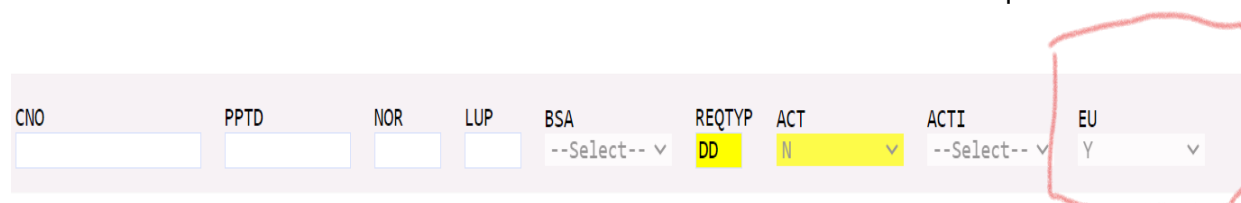
For more information on the new Reqtyp DD skip to page 61 for order examples

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EU Field

A new field on the REQ TYP DD form is the “EU” field. This field identifies the primary location as an end user and is populated with a “Y”.

If circuit terminates at an ACTL leave the field blank and the ACTL field is required.



The screenshot shows a form with the following fields: CNO, PPTD, NOR, LUP, BSA (dropdown), REQ TYP (DD), ACT (N), ACTI (dropdown), and EU (Y). The EU field is highlighted with a red box.

Billing Account Number (BAN)

Use the existing BAN for your other Ethernet Services. If you need a new BAN please fill out the attached form and send it to CarrierWSC@fidium.com.

[Blank BAN Form](#)

Project Field

The Project Field is an optional field.

VTA

Term commitments are available for 12, 24, 36, 60 and 84 months.

The VTA field of the ASR is populated with the number of months per your contract. A blank VTA field will be rejected.

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Service Interval

The Standard Interval for Ethernet E-DIA Service is 20 *business* days for a LIT building or 60-90 plus days if a build is required.

Installation Type	Circumstance	Target Interval
New Installation	All Facilities Exist	20 business days
New Installation	Facilities limited (construction required)	60-90 business days

Change Order

The interval for a change order is 20 Business Days.

Disconnect

For a disconnect order, please use the interval stated in your MSA.

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IP Addresses on E-DIA Order

Standard IP Block

Since E-DIA provides access to the Internet, a standard **/30 WAN IP address** will be provided with the UNI Circuit.

By default, each & every wholesale E-DIA will get a **/30 WAN Block**.

LAN IP Addresses

If **LAN IP Addresses** are required, the following **fields** need to be populated on the DIS form:

- IPAI
- IP_Address
- Subnet_Mask

These fields should be left **blank** if ordering standard **WAN IP Address**

- These fields are **required** if you are ordering **LAN IP addresses** and a Justification form is also required.

- Use the chart below for ordering LAN IPs:

VFO Field Name	Purpose	Value to be Populated
IPAI	Identifies the Internet Protocol Address. FIDIUM is currently using 4	4
IP_Address	Use to order LAN IPs. By populating this field FIDIUM will provide LAN IPs	0.0.0.0
Subnet Mask	Identifies the quantity associated to the LAN IPs being ordered. See chart	255.255.255.XXX

IPv4 Subnet Mask Chart

CIRD	Usable IPs	SUBNET MASK
/30	1	255.255.255.252
/29	5	255.255.255.248
/28	13	255.255.255.240
/27	29	255.255.255.224
/26	61	255.255.255.192
/25	125	255.255.255.128
/24	252	255.255.255.0



See examples on next page...

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Examples for requiring LAN IPs:

Fidium Assigns IP Address on UNI Order

If the customer wants Fidium to assign the IP addresses they will populate the field with a default of 0.0.0.0

The IPAI and SUBNET_MASK fields are also required.

SWITCHED ETHERNET SERVICES LOCATION SECTION [Optional Conditional]				
CCEA			GETO	GBTN
			--Select--	
GCON	GTEL	IP_ADDRESS		
		0.0.0.0		
IPAI	SUBNET_MASK	ESP	OTC	
4	255.255.255.252			

Customer Using Their LAN Block

If customer is using their own LAN block and requests Fidium to add a static route on our end (without BGP) they must populate the IP_Address field with their actual IP Address. The IPAI and SUBNET_MASK fields are also required.

SWITCHED ETHERNET SERVICES LOCATION SECTION [Optional Conditional]				
CCEA			GETO	GBTN
			--Select--	
GCON	GTEL	IP_ADDRESS		
		64.223.109.180		
IPAI	SUBNET_MASK	ESP	OTC	
4	255.255.255.252	GNVLMWE		

Oversize WAN IPs

When ordering an oversize WAN IPs (> /30), use the IP2 fields (IPAI², IP_Address², Subnet_Mask²), also note in remarks you are ordering an Oversize WAN such as /29, The IPAI will also need to be populated as shown in the example.



An IP Justification form is required for an Oversize WAN.

NC	NCI	SECNCI	SR	SBDW	EASBDW	ACCTYP	LAG_ID
KRA1	02LNF.A02	02CXF.1GE					
ROUTER	PROFE	ASN	IPAI	IP_ADDRESS			
			6				
SUBNET_MASK	IPAI2	IP_ADDRESS2	SUBNET_MASK2				
	4	0.0.0.0	255.255.255.248				

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Fidium IP Allocation Policy

Fidium currently designates a separate public WAN and LAN block for many of its services. The WAN block is /30 for E-DIA. If the order requests the default of WAN /30 no additional forms are required.

If the order requires an additional LAN IP or Oversize WAN IP address then an IP Justification Form is required. Please fill out the form and submit it to carrierwsc@Fidium.com

The service cannot be installed till this IP Justification form is received.

IP Form Updated 2023

Once the E-DIA order is received in VFO, the CWC Representative will review the order and if an IP Justification form is required, the Representative will send the form to the initiator of the VFO order. Once completed, return the form to the initiator and CC carrierwsc@Fidium.com.

Example of Completed IPJ form

Large LAN

For larger LAN requests anything greater than a /28 (more than 13 IP's) should go through our IP Management for approval before any sales contracts are signed or orders entered and IP justification form will be required. Please see your Sales Account Executive.

The following is a list of IP subnets. This is a reference and does not constitute a product list.

CIRD	Usable IPs	SUBNET MASK
/30	1	255.255.255.252
/29	5	255.255.255.248
/28	13	255.255.255.240
/27	29	255.255.255.224
/26	61	255.255.255.192
/25	125	255.255.255.128
/24	252	255.255.255.0

IP Addresses

Once the E-DIA order is in a confirm status the IP Addresses will be sent via an email to the initiator on the VFO order.

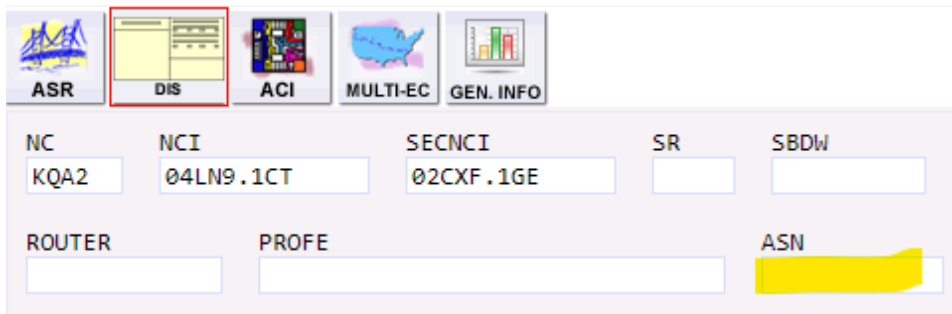
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Border Gateway Protocol (BGP) and ASN Field on EVC Order

Border Gateway Protocol (**BGP**) is a standardized exterior gateway protocol designed to exchange routing and reachability information among autonomous systems (AS) on the Internet.

This is **not** a standard offering, if BGP protocol is required this will be indicated on the **ASN** field of the DIS form and in remarks.

This field will be **blank** if no BGP Protocol is required.



ASR	DIS	ACI	MULTI-EC	GEN. INFO
NC KQA2	NCI 04LN9.1CT	SECNCI 02CXF.1GE	SR	SBDW
ROUTER		PROFE		ASN

BGP Data Gathering Form (DGF)

If the ASN is populated, the carrier will need to fill out a BGP DGF form with Fidium Sales Engineer. This form is always required when BGP is requested.

If customer owned IPs are being used then a customer provided LOA will be required in addition to the BGP DGF form.

Attached is the BGP DGF and example of a LOA:

[DGF BGP FORM](#)

[BGP Letter of Agency](#)

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DNS in Remarks

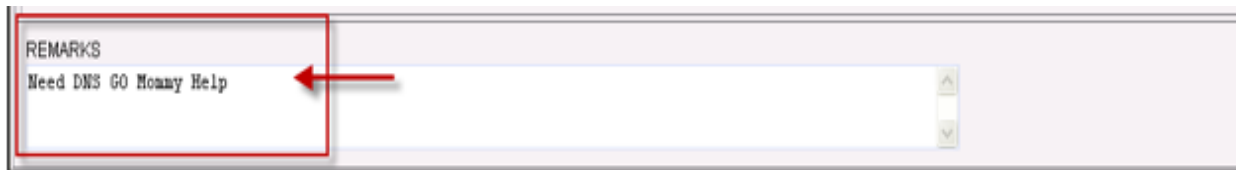
Domain Name Servers (**DNS**) is the Internet's equivalent of a phone book. They maintain a directory of domain names and translate them to Internet Protocol (IP) addresses.

If DNS is required, **or** a need to transition DNS to Fidium from your current ISP the DNS will be manually handled by Fidium's Data Provisioning group.

"DNS" verbiage must be in the remarks field of the EDIA order.

Example

The DNS verbiage should be in the remarks of the EVC form:



The screenshot shows a web form with a 'REMARKS' label and a text input field. The text 'Need DNS GO Monny Help' is entered into the field. A red rectangular box highlights the input field, and a red arrow points from the right side of the box to the text inside the field.

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NC Codes

The circuit speed is determined by the NC code. The available speeds are 3M up to 100G. The EVC bandwidth will be the same speed as the UNI circuit.

The NC codes are rate adjustable so if an E-DIA Circuit is upgraded within the same rate-adjusted code such as from 20M KQA2 to 50M KQA5, the upgrade change can be done on a change order and retain the same circuit ID.

Rate Adjustable NC Codes

The NC codes speeds are as follows:

100M Port NC Codes

<u>NC</u>	<u>Port CIR Speed (4TH Position)</u>	<u>Permissible NCI/SECNCI Options</u>
KQAP	3 Mbps	<u>NCI Electrical Interface</u> 04LN9.1CT (100 Base T) <u>NCI Optical Interfaces</u> 02LNF.A02 (100 Base LX) SMF 02LNF.A04 (100 Base SX) MMF <u>SECNCI</u> 02CXF.1GE (Central Office)
KQAM	5 Mbps	
KQA1	10 Mbps	
KQAA	15 Mbps	
KQA2	20 Mbps	
KQAB	25 Mbps	
KQA3	30 Mbps	
KQA4	40 Mbps	
KQA5	50 Mbps	
KQA-	100 Mbps	

NOTE: NC = Network Channel; NCI = Network Channel Interface; SECNCI = Secondary Network Channel Interface (SECNCI) Codes

1G PORT

NC	Port CIR Speed (4TH Position)	<u>Permissible NCI/SECNCI Options</u>
KRB3	3 Mbps	<u>NCI Electrical Interface</u> 08LN9.1GE (1000 Base T) <u>NCI Optical Interfaces</u> 02LNF.A02 (1000 Base LX) SMF 02LNF.A04 (1000 Base SX) MMF 02QBF.K02 (Collocation/1000 Base) SMF <u>SECNCI</u> 02CXF.1GE (Central Office)
KRBA	5 Mbps	
KRBB	10 Mbps	
KRBC	15 Mbps	
KRBD	20 Mbps	
KRBE	25 Mbps	
KRBF	30 Mbps	
KRBH	40 Mbps	
KRBJ	50 Mbps	
KRA1	100 Mbps	
KRAB	150 Mbps	
KRA2	200 Mbps	
KRA3	300 Mbps	
KRA4	400 Mbps	
KRA5	500 Mbps	
KRA6	600 Mbps	
KRA7	700 Mbps	
KRA8	800 Mbps	
KRA9	900 Mbps	
KRA0	1000 Mbps (1 Gbps)	

10G Port

<u>NC</u>	<u>Port CIR Speed (4TH Position)</u>	<u>Permissible NCI/SECNCI Options</u>
KSAB	.5G (500M)	<u>NCI Optical Interfaces</u> 02LNF.A02 (10G Base SR) SMF 02LNF.A04 (10G Base LW) MMF 02QBF.K02 (Collocation/10G Base) SMF <u>SECNCI</u> 02CXF.10G (Central Office)
KSA1	1 Gbps	
KSA2	2 Gbps	
KSA3	3 Gbps	
KSA4	4 Gbps	
KSA5	5 Gbps	
KSA6	6 Gbps	
KSA7	7 Gbps	
KSA8	8 Gbps	
KSA9	9 Gbps	
KSA-	10 Gbps	

100G Port

<u>NC</u>	<u>Port CIR Speed (4TH Position)</u>	<u>Permissible NCI/SECNCI Options</u>
KUAB	10 Gbps	<u>NCI Optical Interfaces</u> 02LNF.CSA (100G Base SR4) SMF 02LNF.CA4 (100G Base LR4) MMF 02LNF.CL4 (100G Base LR4) SMF 02QBF.CA4(Collocation/100G Base) SMF 02QBF.CSA(Collocation/100G Base) MMF <u>SECNCI</u> 02CXF.1HG (UNI) 02CXF.NM1 (NNI)
KUAD	20 Gbps	
KUAE	25 Gbps	
KUAH	40 Gbps	
KUAK	50 Gbps	
KUA-	100 Gbps	

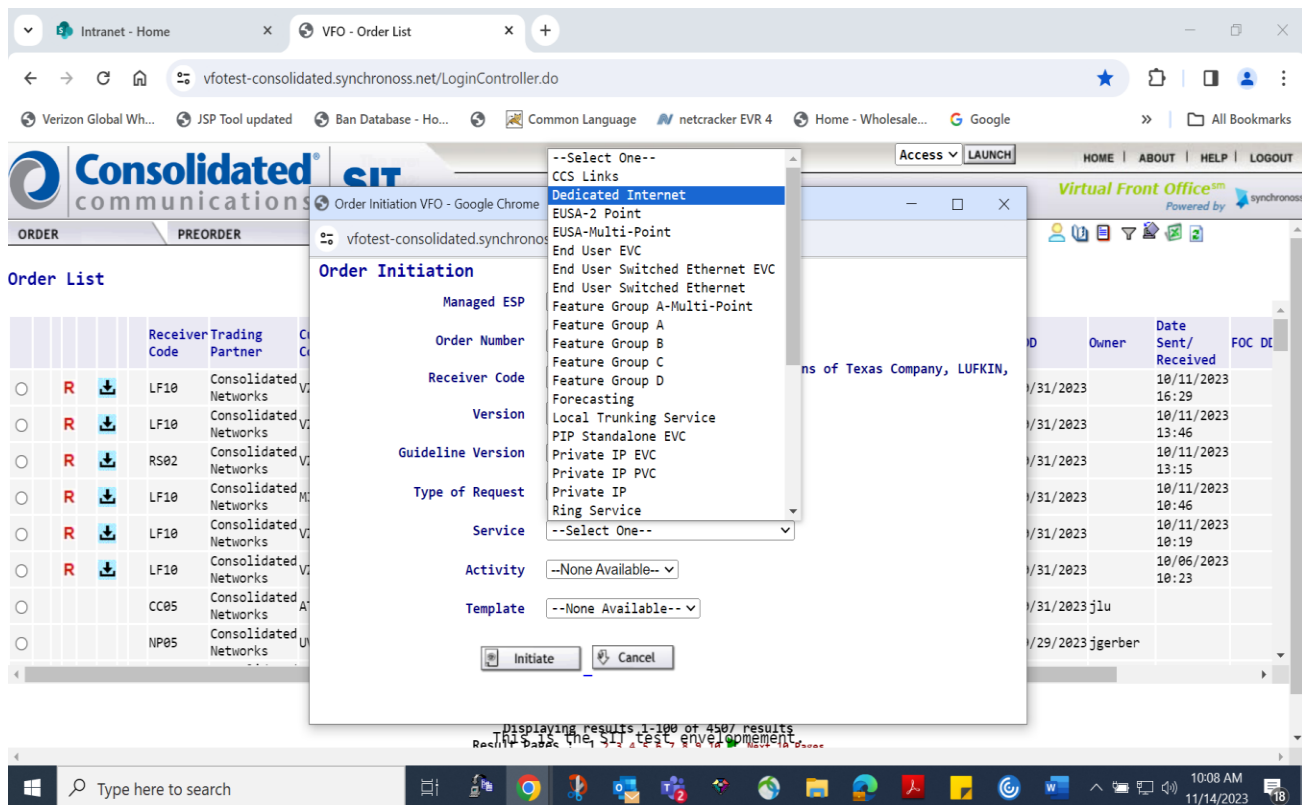
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Order Examples

This service is order through VFO. The ASR Service type forms available in VFO are from the latest ASOG releases relating to Ethernet Service.

To Order the UNI in VFO

- Use Service Type **"Dedicated Internet"**
- ICSC= **See ICSC List on page 3**
- Activity = **N**



The screenshot displays the VFO (Virtual Front Office) interface for order initiation. The main window shows the 'Order List' with columns for Receiver Code, Trading Partner, and Order Number. A modal window titled 'Order Initiation' is open, showing a dropdown menu for 'Service' with 'Dedicated Internet' selected. The form also includes fields for 'Order Number', 'Receiver Code', 'Version', 'Guideline Version', 'Type of Request', 'Service', 'Activity', and 'Template'. The 'Activity' dropdown is set to '--None Available--'. The 'Template' dropdown is also set to '--None Available--'. The 'Initiate' button is visible at the bottom of the form.

Receiver Code	Trading Partner	Order Number
LF10	Consolidated Networks	
LF10	Consolidated Networks	
RS02	Consolidated Networks	
LF10	Consolidated Networks	
LF10	Consolidated Networks	
LF10	Consolidated Networks	
LF10	Consolidated Networks	
CC05	Consolidated Networks	
NP05	Consolidated Networks	

Order Initiation Screen

Order Initiation

Managed ESP
Consolidated_CNS

Order Number
232

Receiver Code
LF10
Consolidated Communications of Texas Company, LUFKIN, TX

Version
01

Guideline Version
67

Type of Request
Firm Order

Service
Dedicated Internet

Activity
N

Template
--None Available--

Initiate
Cancel

The REQTP is DD

The Tabs will include the "DIS" Tab instead of the SES Tab

Pending Initiation
DD
--Select One--
Consolidated_CNS

ASR
DIS
ACI
MULTI-EC
GEN. INFO

ADMINISTRATIVE [Required]

CCNA
PON
232
VER
01
ASRNO
SPA
ICSC
LF10

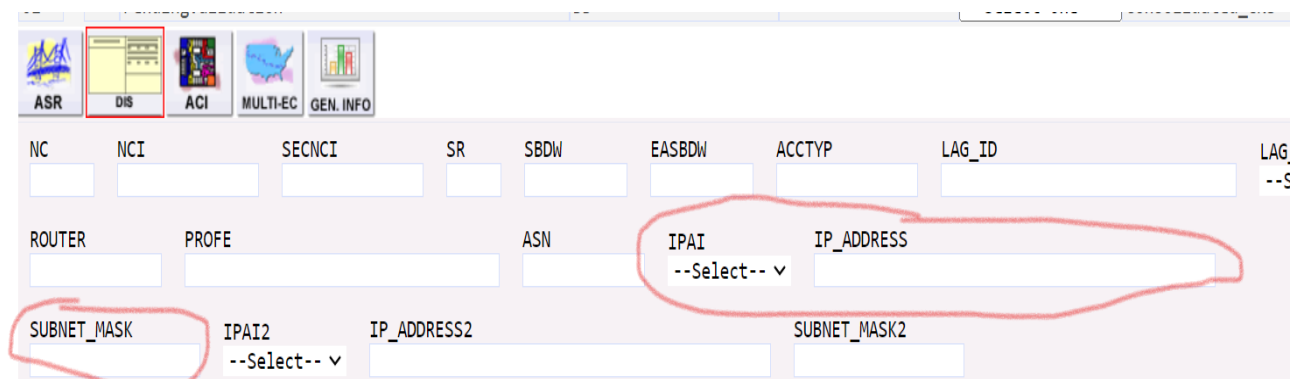
CC
UNE
--Select--
QA
--Select--
CBD
DDD
SSDI_PRILOC
SSDI_SECLOC
FDT
PROJECT

CNO
PPTD
NOR
LUP
BSA
--Select--
REQTP
DD
ACT
N
ACTI
--Select--
EU
--Select--

QSA
WST
LATA
EVCI
SEI
PVC1
NPVC
RTR
SUP
AFO

DIS TAB

The DIS TAB will contain the IP Address fields for ordering LAN IPs.




If this service is ordered using the Switched Ethernet Service (REQTYP ED), the ASR will be put into clarification requesting a Cancel and reissue using the Dedicated Internet Service (REQTYP DD).

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UNI Order Example without additional LAN IPs

ASR Tab / Section	ASR field entry value
ICSC	See page 4
CCNA	XYZ
DDD	20 Business Days or More
Project (Project ID)	Optional
REQTYP	DD
ACT	N
SEI	Y
QSA	01
RTR	F- FOC Only
Customer Name	Optional
CKR	Optional
PIU	100
BAN	E
ASR_REMARKS	New XX E-DIA circuit with /30 WAN
DIS FORM	
NC	See NC Code List
NCI	See NC Code List
SECNCI	See NC Code List
Service Address Information	
PI	Y
EUNAME	End User
SANO	999
SASN	Anystreet
SATH	St
CITY	Anytown
STATE	ME
ZIP	99999
AAI	Additional installation information
LCON	Input your LCON name First and Last
ACTEL	Input your LCON Phone #
JS	D, N or F

UNI E-DIA **with** additional LAN IPs

ASR Tab / Section	ASR field entry value
CCNA	XYZ
DDD	20 Business Days or More
Project	Optional
REQTYP	DD
ACT	N
SEI	Y
QSA	01
RTR	F- FOC Only
Customer Name	Optional
CKR	Optional
PIU	100
BAN	E
ASR_REMARKS	New XX E-DIA with /30 WAN and /29 LAN IPs
NC	See NC Code List
NCI	See NC Code List
SECNCI	See NC Code List
IP_Address	0.0.0.0
IPAI	4
SUBNET_MASK	255.255.255.248
PI	Y
EUNAME	End User
SANO	999
SASN	Anystreet
SATH	St
CITY	Anytown
STATE	ME
ZIP	99999
AAI	Additional installation information
LCON	Input your LCON name First and Last
ACTEL	Input your LCON Phone #
JS	D, N or F

VFO Order Example for EDIA:



VFO Order Example for Oversize WAN IP



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UNI Conversions and Upgrades/Downgrades

When a customer requests an upgrade/downgrade to the UNI access line speed, same location, within the same adjustable rate, this can be done on a Change order.

- A Change order is allowed if no equipment change is required.
- If Equipment change is required a Disconnect and New Order is needed
- A change order for both the UNI and EVC is required.

Change Order to Add LAN IP Addresses

Additional LAN IP Addresses can be ordered as a change order. Two orders are required:

- EVC Order
- UNI Order

A change order on the **UNI** circuit is required with the applicable fields if adding LAN:

- IPAI
- IP_Address
- Subnet_Mask

Additional LAN IP's will require an IP justification form.

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Example of Change E-DIA order to add IP Addresses

The fields **required** to be populated on the ASR tab are below. An IP Justification form is required

ASR Tab / Section	ASR field entry value
PON	Purchase Order Number
CCNA	ABC
DDD	15 Business Days
Project	Optional
REQTYP	DD
ACT	C
SEI	Y
QSA	01
RTR	F- FOC Only
Customer Name	Optional
CKR	Optional
PIU	100
ECCKT	UNI Circuit ID
BAN	E
ASR_REMARKS	Add a /29 LAN to existing E-DIA circuit. No changes to WAN IP.

DIS Form

NC	Same as initial order
NCI	Same as initial order
SECNCI	Same as initial order
IP_Address	0.0.0.0
IPAI	4
SUBNET_MASK	255.255.255.XXX (XXX= IP size)
ESP	SWC of End User (CLLI Code)
PI	Y
EUNAME	End User Name
SANO	1
SASN	Any
SATH	St
CITY	Anytown
STATE	ME
ZIP	00000
LCON	Name
ACTEL	9999999999
LCON EMAIL	required

Change from /30 WAN and /30 LAN to /29 LAN

Enter information in remarks

ASR_REMARKS

CHANGE ORDER; CHANGE FROM /30 WAN and /30 LAN TO NEW /29 LAN INSTEAD.

On the DIS Screen

Enter the IP Address field

- IPAI 4
- IP Address 0.0.0.0
- Subnet Mask 255.255.255.248

ROUTER	PROFE	ASN	IPAI	IP_ADDRESS
			4 v	0.0.0.0
SUBNET_MASK	IPAI2	IP_ADDRESS2	SUBNET_MASK2	
255.255.255.248	--Select-- v			



An IP Form is required

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Remove IP Address

Enter in remarks to disconnect IP Address

ASR_REMARKS

remove /27 LAN, do not disturb /30 WAN

IP Address fields will be blank

ROUTER	PROFE	ASN	IPAI	IP_ADDRESS
			--Select-- v	
SUBNET_MASK	IPAI2	IP_ADDRESS2	SUBNET_MASK2	
	--Select-- v			



AN IP form is not required

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Ordering Oversize WAN

To order an oversize WAN, (/29 WAN), use the IP2 fields on the DIS form.

ROUTER	PROFE	ASN	IPAI	IP_ADDRESS
			4 ▾	0.0.0.0
SUBNET_MASK	IPAI2	IP_ADDRESS2	SUBNET_MASK2	
255.255.255.248	4 ▾	0.0.0.0	255.255.255.248	

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Ordering BGP

To order BGP, the ASN is required on the E-DIA order, along with the DGF and LOA.

    							
NC	NCI	SECNCI	SR	SBDW	EASBDW	ACCTYP	LAG_ID
ROUTER	PROFE	ASN		IPAI	IP_ADDRESS		
		12345		--Select-- ▾			
SUBNET_MASK	IPAI2	IP_ADDRESS2		SUBNET_MASK2			
	--Select-- ▾						

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