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**IN THE MATTER OF U S WEST
COMMUNICATIONS, INC.'S
COMPLIANCE WITH § 271 OF THE
TELECOMMUNICATIONS ACT OF 1996**

Docket No. T-0000A-97-0238

**AT&T'S SUPPLEMENTAL FILING
ON CHECKLIST ITEMS 7 & 10**

AT&T Communications of the Mountain States, Inc. and TCG Phoenix
(collectively, "AT&T") hereby supplement the record on Checklist Items 7 and 10.

At the conclusion of the workshops on checklist items 7 and 10, AT&T and Qwest Corporation, formally U S WEST Communications, Inc. ("Qwest"), continued to meet to discuss changes to Qwest's internal documentation to reflect Qwest's current position on checklist items 7 and 10 contained in the Statement of Generally Available Terms and Conditions ("SGAT") and recent amendments thereto. In Washington, AT&T and Qwest recently reached agreement on the non-SGAT documentation regarding checklist items 7 and 10. Qwest has not offered to put the documentation in record in Arizona. AT&T believes it is necessary to put the non-SGAT documentation in the record so that the record fully reflects resolution of these issues.

Attached hereto is the documentation recently agreed to by AT&T and Qwest in Washington Section 271 workshops that reflects resolution of the outstanding issues on checklist items 7 and 10.

DATED this 27th day of July, 2000.

Respectfully submitted,

AT&T COMMUNICATIONS OF
THE MOUNTAIN STATES, INC.
AND TCG PHOENIX.

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7-6-00

CHECKLIST ITEMS #7 AND #10
DIRECT CONNECTION DOCUMENTS

Revisions from June 30, 2000 meeting:

1. Interconnection and Resale Resource Guide (IRRG) – U S WEST Collocation Products and Policies Resource Guide:
 - Pg. 6 – standard interval stated (and will be published in the Standard Interval Guide by 7-10-00)
 - Pg. 13 – delete section “Elements at the ICDF”
2. Collocation Application and Co-Provider (CLEC) Information Form & Direct Connection (DC-POT) With Collocation Application Form
 - Pg. 3 – Section II.A. Direct Connection note refers to the Direct Connection (DC-POT) with Collocation Application Form.
 - Direct Connection Form – Section III.B. and Section IV.D. deleted “Co-Provider Site”.
3. PUB 77386 – Chapter 3 “Interconnection Arrangements”:
 - Pg. 3-7 – add reference to “Collocation Products and Policies Resource Guide.”
4. PUB 77386 – Chapter 16 “Interconnection With Finished Services”:
 - Pg. 16-12 – correct typo – delete sentence from Section 16.9 and add to Section 16.8
5. TAB 19 of Operations Guide for 911 – no changes recommended (no copy)

***US WEST Collocation Products and Policies
Resource Guide***

2004 15-00
Page 1 Revision

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Collocation Products and Policies

Collocation allows for the placing of telecommunications equipment within U S WEST's Central Office for the purpose of accessing UNEs and/or terminating EAS/Local and ancillary traffic. The telecommunications equipment can be either owned by the Co-Provider or in the case of virtual collocation - leased back to U S WEST.

Virtual Collocation

Virtual collocation allows for the placement of a Co-Providers telecommunication equipment in a U S WEST central office for the purpose of interconnecting with the U S WEST network and associated unbundled elements. Upon the initial request, U S WEST will perform a feasibility study to determine if room is available within the central office. The Co-Provider is responsible for the procurement of its own telecommunications equipment which U S WEST installs and maintains.

Caged Physical Collocation

Caged Physical Collocation allows a Co-Provider to lease caged floor space in square foot increments, up to a maximum of 400 square feet, for placement of its telecommunications equipment within U S WEST's Central Office for the purpose of interconnecting with U S WEST finished services or UNEs. CLEC will have access to its collocated equipment 24 hours a day, seven days a week. Requests for space in excess of 400 square feet will be considered on an individual case basis. The Co-Provider is responsible for the procurement, installation and on-going maintenance of its telecommunications equipment as well as the cross connections required at the appropriate cross-connect device or InterConnect Distributing Frame (ICDF) for the purpose of making cross connections it may require for access to U S WEST UNEs or to perform trouble isolation.

InterConnect Tie Pair (ITP)

The Interconnect Tie Pair or ITP is the connection between the ICDF or appropriate **cross connect device** and the U S WEST Main Distribution and/or COSMIC frame. The ITP replaces the Enhanced Interconnection Channel Termination (EICT) and will be applied when an order is provisioned connecting an unbundled network element to a Co-Provider's telecommunication equipment.

Finished Services Infrastructure

During the original construction phase of the Collocation, the CLEC has the opportunity to also pre-provision an infrastructure that may later be used for ordering finished services. This finished service infrastructure consists of cabling and blocks from a new demarcation point to an appropriate existing frame. The infrastructure will be pre-provisioned with the collocation construction and then utilized at a later date (after the collocation ready for service date) to provision the orders for finished service.

A Finished Service is any normal or traditional service sold by U S WEST in a tariff, contract, or catalog. The Finished Service typically consists of a number of network elements connected together in a designated fashion. U S WEST assumes design and record keeping responsibility for the service. The Interconnector still has responsibility of design and record keeping of any additional facilities or equipment that are added to the U S WEST -provided Finished Service. These services are described in catalogs, contracts, and technical publications.

To provide U S WEST with the quantity and technical specifications for this infrastructure, the CLEC must complete the finished service section of the collocation application and indicate the number of finished service terminations that they anticipate they will need. Further information for completing these sections may be found in the application and associated job aid.

Configuration Options

The CLEC has three demarcation options when pre-provisioning the finished service infrastructure:

1) Demarcation at the ICDF

When this option is selected, the tie cabling will be pre-designed and pre-constructed from existing frames throughout the building to the ICDF. The CLEC typically uses CLEC provided cabling to connect the finished service at the ICDF to their collocation space.

- Shared Access

2) Demarcation within the Collocation Space

The CLEC has two further options for the infrastructure configuration with this choice:

- Shared Access
- Direct Connection (ordered via the supplemental Collocation Order form for direct terminations)

3) Demarcation outside the Collocation Space

- Direct Connection (ordered via the supplemental Collocation Order form for direct terminations)

Shared Access

In a Shared Access configuration, there are multiple frames that could be used such as an ICDF. Through the use of these frames U S WEST, will design and construct the infrastructure in the most efficient manner from a Network frame to the Collocation space. This may involve an ICDF or back to back frames. The signal level at the collocation space is engineered to be templated and equipment to insure this signal level will be designed and installed into the infrastructure.

Direct Connection

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The direct connection option for the finished service infrastructure provides an uninterrupted path from an existing network frame to the collocation space. The cable will terminate at a network frame based on the location of the service that the CLEC wishes to connect to. Direct Connections are ordered via a Supplemental Collocation Order Form. Further details describing direct connections may be found in the "Configuration Options" section of this Guide and the U S WEST/CLEC Guide to Provisioning Direct Connection.

Configuration Options

A demarcation point is needed to clearly mark the juncture of facilities owned by the collocator and facilities owned by U S WEST. U S WEST will provide a connection between unbundled network elements and ancillary services and the demarcation point. This is an Interconnection Tie Pair (ITP). The demarcation point may be:

- Shared Access: at a U S WEST-provided shared or dedicated Interconnection Distribution Frame (ICDF) if collocator elects to use ICDF Collocation to combine UNEs; or
- Direct Connection: at a collocator-provided termination point located in the collocator's Virtual or Physical Collocation Space; or
- at another demarcation point mutually agreed to by the parties.

Shared Access

In a Shared Access configuration, there are multiple frames that could be designated as an ICDF or appropriate demarcation point including, but not limited to, the following:

- Existing Interconnection Distributing Frame (ICDF).
- Existing DSX Panels for DS-1 and DS-3 services
- New Interconnection Distributing Frame
- Existing Toll Frame

The ICDF is the test access point. It would not be uncommon to find multiple service providers, including U S WEST, on the ICDF at any one time.

Direct Connection

Direct Connection provides an uninterrupted path from the collocation space to an existing frame. This option will guarantee that there will not be an ICDF. The connection will be designed from the collocation space to the same frame that U S WEST uses to connect to that specific service. For example, if the CLEC wants to connect directly from their collocation space to a 911 router, the infrastructure for the 911 trunks will terminate in a DS1 bay location with the 911-router circuits. There are several options for the location of the demarcation point. The CLEC will select their desired option via the supplemental Direct Connection (DC-POT) With Collocation Form DC050900. If the CLEC chooses a demarcation inside the collocation space, the collocator should order and install the termination equipment itself. Demarcation equipment must be noted on the order form so that a CLLI code and unique tie cable assignments can be generated for systems flow through. If the CLEC chooses a demarcation outside it's collocation space, U S WEST will maintain and inventory this device. Direct terminations may be ordered where frame space is available. If frame space is exhausted the terminations may need to be made at another frame. Upon completion of the pre-provisioning of the Direct Connection, the CLEC will receive an Alternate Point Of Termination (APOT) form so that they may order finished services

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and UNEs. The CLEC will be responsible for augmenting terminations as required. The Direct Connection APOT information must be provided on the ASR or LSR to insure that the services are designed to the dedicated path.

The collocator's termination point will require a CLLI code (e.g., Frame Number) and the dedicated tie pairs will require a unique name to enable automatic assignment through TIRKS™ and SWITCH™ via Carrier Facilities Address (CFA) methods.

If a collocator wishes to arrange terminations on a 2-wire POTS level cross-connect device of the modular type, i.e. COSMIC™ Hardware, standard-engineering principles will apply. Provisioning intervals and costs will be customized and determined on an individual case basis (ICB). A 5-year forecast including terminations per quantities will be required. MELD runs will be required for the initial COSMIC plan and each subsequent block addition. Minimum installation is 1 block per module with a ½ shelf of block capacity reserved for future block space, where space is permitting. Where ½ shelf space is not available, retermination (grooming) of circuits and frame growth may be required. Costs for such activities will be assessed to the CLEC and listed on the quote.

Requests for terminations at a DSO, DS1, DS3 and optical level (non-POTS) may also be made directly to the respective frame or panel (i.e. toll frame, DSX, FDP, etc.). Direct Connections to these frames do not require MELD™ runs and short jumper engineering principals, as with the COSMIC™ frame. However these connections will require coordination between U S WEST and the CLEC to ensure that the cable is terminated in an existing frame with the service that the CLEC is wishing to connect with.

Terminations on these frames are ordered in the following increments:

- DS0-100 terminations
- DS1-28 Terminations
- DS3-1 termination
- Fiber-12 fiber strands

Direct Connection is ordered via the supplemental collocation order form, Direct Connection (DC-POT) With Collocation Form DC050900. Upon receipt of the application form requesting Direct Connection, U S WEST will verify that the specified direct connection is possible. It is recommended that a joint planning session be held between the CLEC and U S WEST to determine the most efficient routing and ensure mutual understanding of technical requirements. Once the planning session has been held between the CLEC and U S WEST, verification will be completed within 10 business days.

U S WEST will develop a cost quotation not more than 25 business days from verification. The Co-Provider has 30 days to respond to U S WEST with a 50% down payment. A non-refundable Quote preparation fee is to be paid with the first 50% down payment of quoted charges or is due upon refusal of the quote. Once 50% of the quoted non-recurring charges is received, U S WEST will begin provisioning the direct connection per the Co-Provider's request (90 day construction time frame after 50% payment is received). These intervals may be concurrent with other collocation efforts. Intervals are published in the U S WEST Wholesale Markets Product Resource Guides under Standard Interval Guide.

Timing, pricing and feasibility will be determined on the basis of a specific, in-depth building analysis. Direct Connections are available where available frame space permits. If frame space is exhausted, terminations may need to be made at another frame. Space availability will be determined during the feasibility request phase of the order.

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Cageless Physical Collocation

Cageless Physical collocation offers a non-caged area within the U S WEST Central Office in which Co-Providers can place and maintain their own transmission equipment for the purpose of interconnection with U S WEST Unbundled Network Elements. Unlike the minimum 100 square foot space requirements of Physical Collocation, space will be provided in single frame bay increments, 26" wide and 7' tall which will require 9 square feet of floor space per bay. The Co-Provider is responsible for the delivery and placement of their own bays in a Cageless Physical collocation arrangement. U S WEST will however, accept applications where the Co-Provider requests U S WEST to order and install the bays on the Co-Provider's behalf. The additional cost for the bay and labor to install it will be added to the collocation quote.

Cageless Physical requests for multiple equipment bays will be provided in adjacent space where available. Where contiguous bay space is not available, bays may be co-mingled with U S WEST or other Co-Provider equipment bays. Co-Providers may request a price quote to rearrange U S WEST equipment in order to provide the Co-Provider with adjacent space. If circuit rolls are required in order to make room for a Cageless Physical arrangement, a charge will be assessed for the circuit rolls on a "per circuit" basis. Circuit rearrangements, conducted by U S WEST, must be completed prior to the Co-Provider installing their equipment bays.

Co-Providers with approved Interconnection Agreements will have access to the U S WEST Central Office for the purpose of installing, maintaining and combining their collocated equipment with U S WEST Unbundled Network Elements (UNEs) within the Cageless Physical space. Access is pursuant to U S WEST's policy on Central Office Access. CLEC will have access to its collocated equipment 24 hours a day, seven days a week.

Cageless Physical Collocation is offered pursuant to the Co-Provider's Interconnection Agreement. If said agreement does not contain language specifically defining Cageless Physical Collocation, the Co-Provider must amend their current contract. The amendment must be approved by the same state commission, as was the initial Interconnection Agreement. In order to avoid any delays while waiting for commission approval, U S WEST will start to work the Cageless Physical Collocation requests upon signature of both parties. Once signed, the request will be processed under the "Parallel Process". Notification of the Parallel Process was recently distributed as the first in a series of Collocation Bulletins. Access to the Cageless Physical Collocation space will not be granted nor can a service order be submitted prior to commission approval.

When the Co-Provider requests Cageless Physical Collocation the Account manager must notify the U S WEST Interconnection Negotiating Team. A U S WEST Negotiator will then contact the Co-Provider to execute the amendment and the Letter of Authorization.

The standard installation interval for Cageless Physical Collocation is 90 days unless otherwise specified in the Co-Provider's interconnection agreement. This Cageless Physical Collocation interval is driven by space and power availability.

- Space availability is defined as vacant space within a U S WEST central office equipment area that is collocation qualified. If equipment and/or circuit moves are required in order to allocate space, to fulfill the collocation request, this work activity will delay the standard construction interval.
- Power availability is defined as - 48v DC power capacity at the existing power plant and, if used, a Battery Distribution Fuse Bay (BDFB) must exist within 80 feet of the Cageless Physical space. If within 80 feet, the BDFB must also have reserved termination capacity.

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- In those instances where power is not available, the placement of battery strings, rectifiers, power plant or diesel generators may be required. If so, this additional work will require additional time to complete the build-out. Refer to the following table:

Rectifier or BDFB	90 days construction time frame
Battery String	120 day construction time frame
Power Plant <ul style="list-style-type: none"> • Battery String • Rectifier • Controllers • Distribution Boards 	180 day construction time frame
Diesel Generator	240 day construction time frame

Shared Space Caged Physical Collocation

U S WEST is announcing the addition of a Shared Space Caged Physical Collocation option to its existing Physical Collocation product line.

Shared Space Caged Physical Collocation is the physical sharing of a Caged Physical Collocation space. The decision/option to share a Caged Physical Collocation space is at the sole discretion of the Co-Provider who was the original occupant and from here on referred to as the "original collocator".

The Co-Provider seeking to share space with the original collocator, from here on referred to as the "secondary collocator", is responsible for any non-recurring and recurring costs associated with a Share Space Caged Physical Collocation arrangement including separate entrance facilities, power requirements and usage and terminations provided by U S WEST.

Co-Providers with approved Interconnection Agreements have access to the U S WEST Central Office for the purpose of installing, maintaining and combining their telecommunications equipment with U S WEST Unbundled Network Elements (UNEs) or other Co-Provider's telecommunications equipment. Access to Share Space Caged Physical Collocation is pursuant to U S WEST's policy on Central Office Access. The State Interconnect Manager will review this document with the secondary collocator prior to issuing the keys and/or cards required for access to the U S WEST central office.

When either Co-Provider requests Shared Space Caged Physical Collocation the Account Team representative must notify the U S WEST Interconnection Negotiating Team. A U S WEST Negotiator will then contact the Co-Provider to execute the amendment. Each Co-Provider must amend their Interconnection Agreement and then have that amendment approved by the same state commission as was the initial Interconnection Agreement. In order to minimize delays while waiting for commission approval, U S WEST will parallel process the Shared Space Caged Physical Collocation application pursuant to the Parallel Process notification the was recently distributed as the first in a series of Collocation Bulletins.

When requesting Shared Space Caged Physical Collocation, the secondary collocator is responsible for negotiating an agreement for the space with the original Co-Provider of record. U S WEST will not accept the application requesting this form of Physical Collocation unless the secondary collocator provides a Letter of Authorization (LOA) from the original collocator.

General Information on Shared Space Caged Physical Collocation

To avoid concerns over warehousing and benefiting from such a practice, the original collocator can only charge the secondary collocator a recurring rate that is equal to or less than the "per square foot" rate U S WEST is currently charging the original tenant under the existing lease. If the original collocator charges the secondary collocator a non-recurring charge for the space they occupy, within the caged enclosure, that non-recurring charge shall not exceed the amount paid by the original collocator. During feasibility, U S WEST will communicate the recurring and nonrecurring amounts to the secondary collocator.

The decision to establish Shared Space Caged Physical Collocation is based on a common agreement between two Co-Providers and is pursuant to the amendment. U S WEST will be indemnified from any liability or disputes associated with Shared Space Caged Physical Collocation. The original collocator assumes all responsibility for the construction project and any damage that may occur during the placement of the secondary collocator's telecommunication equipment.

Each Co-Provider's telecommunication equipment will have its own unique CLLI code for delineating the telecommunication equipment within the shared space. Requests for terminations

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to the appropriate cross connect device or InterConnect Distributing Frame (ICDF) also are unique to each Co-Provider.

Security - The secondary collocator will be required to comply with current U S WEST policies concerning central office access and security. Access cards will be issued to each Co-Provider representative and will be enforced under the same process that the original collocator received approval. CLEC will have access to its collocated equipment 24 hours a day, seven days a week.

Rate Elements Applicable to the Secondary Collocator

Non-Recurring

- Entrance Facilities (if applicable)
- Power requirements
- Terminations - Collocation to appropriate cross connect device or ICDF

Recurring

- Entrance Facilities (if applicable)
- Power usage
- Terminations and EICTs - as ordered

Intervals

The standard interval for Shared Space Caged Physical Collocation is 90 days but can be influenced by power availability.

- Power availability is defined as - 48v DC power capacity at the existing power plant and, if used, a Battery Distribution Fuse Bay (BDFB) must exist within 80 feet of the Shared Space Caged Physical Collocation space. If within 80 feet, the BDFB must also have enough reserved termination capacity to satisfy the Co-Provider's request.
- In those instances where power is not available, the placement of at least the following may be required: battery strings, rectifiers, power plant or diesel generators may be required. If more activity is required, so, this additional work will require additional time to complete the build-out. Refer to the following table:

Rectifier or BDFB	90 days construction time frame
Battery String	120 day construction time frame
Power Plant <ul style="list-style-type: none"> • Battery String • Rectifier • Controllers • Distribution Boards 	180 day construction time frame
Diesel Generator	240 day construction time frame

ICDF Collocation

Access to Unbundled Network Elements (UNEs) occurs via a U S WEST cross connect device. These cross connect devices are located within U S WEST's central offices and are shared by multiple CLEC's. These cross connect devices are known as InterConnection Distribution Frames (ICDF). ICDF Collocation is not available in offices where a CLEC already has another form of collocation. When Co-Providers do not have equipment placed in a U S WEST Central Office (Physical or Virtual Collocation), but want only to combine U S WEST Unbundled Network Elements, a new form of Collocation is now available called InterConnection Distribution Frame (ICDF) Collocation. U S WEST will place blocks/panels and cabling to provide the CLEC with CFA. From the CFA on the APOT the CLEC will order Unbundled Network Elements. Cost recovery for the labor and materials for the frame/bay space used, blocks/panels, cable racking, and cabling from the ICDF to the network termination point is performed via the Interconnection Tie Pair (ITP) charge associated with each UNE. ICDF collocation is offered at a DS3, DS1, or DS0 level and will be provided in the following increments:

- DS0 - In blocks of 100 terminations.
- DS1 - In increments of 28 terminations
- DS-3 - In increments of 1 coax pair

Unless where ordered by local restrictions, Co-Providers are responsible for running the jumper (cross connect) from one UNE to another UNE, and both of these UNEs must be owned by the same CLEC. This connection must be performed utilizing standard safety and installation guidelines. Approved Co-Providers with ICDF Collocation will have 24 hour-a-day, 7 days a week access to the U S WEST Central Office for the purpose of combining elements.

Ordering

Upon receipt of a Collocation Application Form requesting ICDF Collocation, the IAC will verify that ICDF capacity is available within the Central Office. Verification of ICDF capacity will be completed within 10 calendar days. A quote is performed detailing the charges to engineer the collocation space.

U S WEST will begin provisioning the collocation request per the Co-Provider's order application. This will include the engineering of the appropriate cabling between a network termination (i.e. DSX panel or block) and an ICDF frame location (panel or block). U S WEST will establish the ICDF collocation within standard collocation construction intervals after receipt of the application. U S WEST will provide all associated cabling and equipment to construct the collocation. Charges for the equipment and cabling will be assessed on a recurring basis through the UNEs that are being ordered.

When a collocation order form is received with the ICDF Collocation section marked, a conference call will be initiated by the IAC to include the AE, CSPEC, IOF, to clarify what the CLEC will be connecting to their UNEs.

Next, the CSPEC will determine which frames will be affected, give the F- number, CLLI codes, and cabling requirements to the IAC, and determine whether capacity is available. If not, a job will be initiated to have IOF engineering add blocks or panels, and the associated terminations. An engineering quote will be furnished to the customer to provide the equipment additions and cabling necessary.

Upon completion of the ICDF Collocation construction APOT will be furnished to the CLEC.

ICDF Collocation Billing Elements

Recurring charges are applied to the unbundled element in the form of an InterConnection Tie Pair (ITP) rate element. This recurring charge recovers the cost of the labor and materials for the frame/bay space used, blocks/panels, cable racking, and cabling from the ICDF to the network termination point.

The following recurring charges are applied to the ICDF collocation product:

- Engineering Charge-Recovers the cost of labor to engineer and quote the ICDF Collocation request.
- Security Charge-Recurring fee for 7x24 access to the office

If specific language is not contained within a Co-Provider's Interconnection Agreement defining ICDF Collocation, the Account Team representative must notify the U S WEST Interconnection Negotiating Team. A U S WEST Negotiator will then contact the Co-Provider to execute an amendment. The Co-Provider must amend their Interconnection Agreement and have that amendment approved by the same state commission as was the original Interconnection Agreement. In order to avoid delays while waiting for commission approval, U S WEST will parallel process the ICDF Collocation application if requested by the Co-Provider. Notification of the Parallel Process was recently distributed as a Collocation Bulletin.

~~Elements at the ICDF~~

~~At no time will finished services terminate to ICDF collocation or be combined with UNEs.~~

Entrance Facility Options

To provide greater flexibility for our customers, U S WEST is pleased to announce two new Entrance Facilities options. These two new options are in addition to the standard shared entrance facility that is currently offered.

The Collocation Entrance Facility is used to connect a Co-Provider's network with their collocated equipment through a Caged or Cageless Physical or Virtual Collocation arrangement with U S WEST. The Co-Provider is required to meet U S WEST at the Point Of Interconnection (POI) utility hole outside of the U S WEST Central Office with their fiber cable. U S WEST then splices their fibers, in increments of 12 fibers, to a U S WEST shared entrance fiber cable. The shared fiber entrance cable is terminated on a Fiber Distribution Panel (FDP) within the Central Office. From the FDP, individual fiber jumpers are then routed to the Co-Provider's collocated equipment.

At time of application, customers will choose their Collocation Entrance Facility option by specifying their preferred option in the "Remarks" section of the Collocation Order Form. The processing of an application for one of these new options will follow the normal collocation feasibility and quote process.

These new Entrance Facilities are offered pursuant to the Co-Provider's Interconnection Agreement. If said agreement does not contain language specifically defining the two new options, the Co-Provider must amend their current contract. The amendment must be approved by the same state commission as was the initial Interconnection Agreement and should be initiated by the Co-Provider's Account Team representative.

When the Co-Provider requests one of the new entrance facility options, the Account Manager must notify the U S WEST Interconnection Negotiating Team. A U S WEST negotiator will then contact the Co-Provider to execute the amendment. U S WEST will parallel process these applications while the amendment is awaiting commission approval. All options will be integrated into the Phase II template.

In certain instances, the Co-Provider may choose to lease innerduct from U S WEST in lieu of placing their own infrastructure. In this scenario, the Co-Provider's fiber optic cable must extend through the POI utility hole prior to entering the U S WEST central office via utility hole zero.

The following options for Collocation Entrance Facilities are now available.

Option 1 - Standard Collocation Entrance Facility (See Drawing "Option 1")

The Standard Collocation Entrance Facility utilizes a shared 72-strand Outside Plant (OSP) fiber cable that is constructed by U S WEST from the designated POI to a FDP within the Central Office. The OSP fiber cable is spliced into a fire rated central office cable at a transition splice within the Fiber Splice Facility, which is either the cable vault or a designated fiber splice point. The FDP provides U S WEST with test access and connection between the entrance fiber and a CO-Provider's collocated equipment.

U S WEST will splice their fibers (in increments of 12) to a shared fiber entrance facility provided by U S WEST. The shared fiber entrance is terminated on a single FDP within the Central Office. From the FDP, individual fiber jumpers are then routed to the Co-Provider's collocated space and/or equipment. This option provides the ability to go only to one location within the central office. If additional locations are requested within the same Central Office, the Co-Provider will have the option to either establish tie cables or request Option 2, below.

Key Points

- A splice will be required in the POI hole and at the transition splice location.
- Utilizes minimum number of connections - only two splice points, at the POI and at the transition splice location.
- Uses a standard shared fiber entrance.
- Provides full testing capability.
- Increments of 12 fiber cables will be dedicated to a single Co-Provider location from a single FDP.

Billing Elements

- Entrance facility at Standard Price, including:
- Shared POI
- Shared Fiber Entrance Cable
- Shared Innerduct
- Shared Transition Splice
- Shared FDP termination - one FDP
- Dedicated Fiber from FDP to Co-Provider Equipment
- Shared Fiber Protection

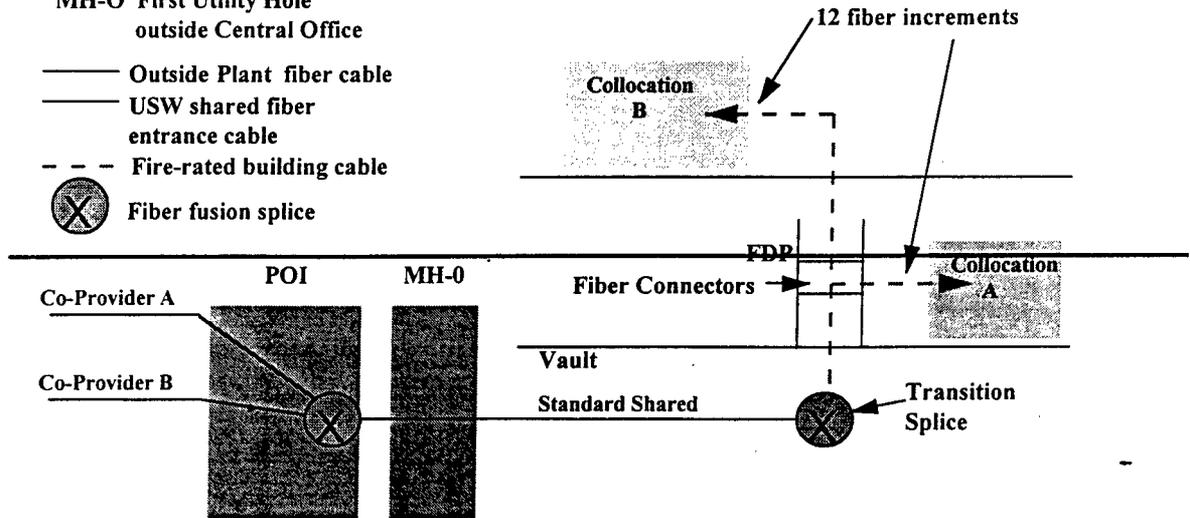
Standard Shared Collocation Entrance Facility

(Single FDP without Cross-Connection Capability)

FDP Fiber Distribution Panel
 POI Point Of Interconnection
 MH-O First Utility Hole
 outside Central Office

— Outside Plant fiber cable
 — USW shared fiber entrance cable
 - - - Fire-rated building cable
 Fiber fusion splice

U S WEST Central Office



Option 1

Option 2- (Cross-Connect Option)
See Drawing "Option 2"

Option 2 also will use the same shared fiber as that used for Option 1, a shared 72-strand OSP fiber entrance cable spliced into a fire-rated Central Office cable at a transition splice. With the cross connect option, two FDPs are required. The entrance fiber cable terminates on the first FDP and provides test access and flexibility for cross connection to the second FDP, where the Co-Provider's various equipment is terminated within the Central Office.

Option 2 has the ability to serve multiple locations or pieces of equipment within the office, which readily supports Virtual, Cageless or Caged Physical Collocation. This option also supports transitions from one form of Collocation to another.

Key Points

- A splice will be required in the POI hole and at the transition splice location.
- A termination is required on two FDPs.
- The fiber serving the Co-Provider's equipment is terminated on a second FDP.
- A fiber jumper is required between the two FDPs and placed by U S WEST.
- Uses a standard shared fiber entrance.
- Has full testing capability at the first FDP (FDP - 1).
- Has capability to serve multiple collocations within a Central Office.
- From FDP - 1, the Co-Provider may choose either a 4 or 12 strand fiber cable to be placed and dedicated to each single collocation.

Billing Elements

- Entrance facility at Standard Price, including:
- Shared POI
- Shared Fiber Entrance Cable
- Shared Innerduct
- Shared Transition Splice
- Shared FDP termination - FDP-1
- Shared FDP equipment terminations - FDP-2
- Fiber Jumpers
- Dedicated Fiber from FDP to Co Provider Equipment
- Shared Fiber Protection

Standard Shared Collocation Entrance Facility

(Multiple FDPs with Cross-Connection Capability)

FDP Fiber Distribution Panel

POI Point Of Interconnection

MH-O First Utility Hole outside Central Office

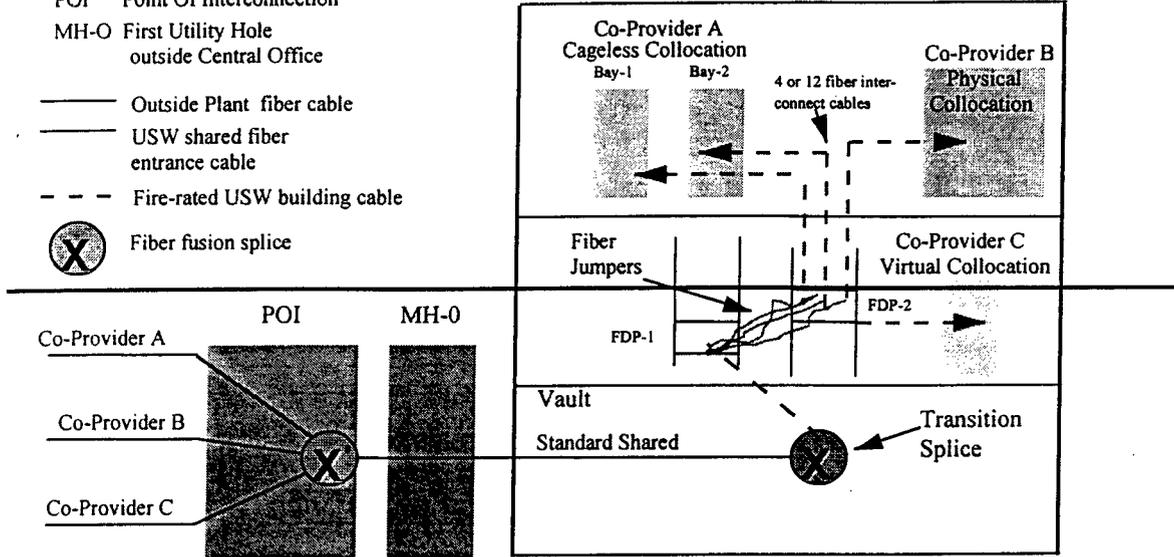
— Outside Plant fiber cable

— USW shared fiber entrance cable

- - - Fire-rated USW building cable

⊗ Fiber fusion splice

U S WEST Central Office



Option 2

Option 3 - (Express Fiber Entrance) **See Drawing "Option 3"**

Option 3, when chosen, can come in two different architectures. The first would be when a Co-Provider places their own infrastructure within close proximity of the POI hole and then extends conduit between the Co-Provider's utility hole and the POI hole which was placed by U S WEST for the purpose of local interconnection. The second scenario has the Co-Provider leasing innerduct in lieu of placing their own infrastructure

With Option 3, if the Co-provider provides U S WEST with a fire-rated cable, U S WEST will extend their fiber cable from the POI hole directly to the Collocation area. If the entrance cable is not fire-rated, a transition splice will be required to convert to fire-rated cable for extension to the Collocation area. U S WEST will provide the fire-rated cable as part of the Collocation quote.

The available structure (conduit and innerduct) between the POI and the Central Office Vault is a very limited resource. Therefore, Option 3 will not utilize the U S WEST shared entrance facility as described in Options 1 and 2. Because the available structure (conduit and innerduct) between the POI and the Central Office vault is a very limited resource, there may be limited availability of this option. In order for Option 3 to be available, spare structure must exist, along with additional capacity to support emergency restoration for copper and fiber and shared entrance for future Collocation requests. If the Co-Provider chooses Option 3, and no spare structure exists, they will be quoted a charge for the incremental replacement cost of the structural elements (conduit and innerduct) as part of their quoted charges for Collocation.

Key Points

- This option utilizes a dedicated entrance cable.
- There are minimal points of failure
- There is no flexibility to take the fiber cable to multiple locations within a CO.
- The only test access capability that exists is the termination point at the Co-Provider's equipment.
- The Co-Provider has all administration and assignment responsibilities of the Entrance Facility.

Billing Elements

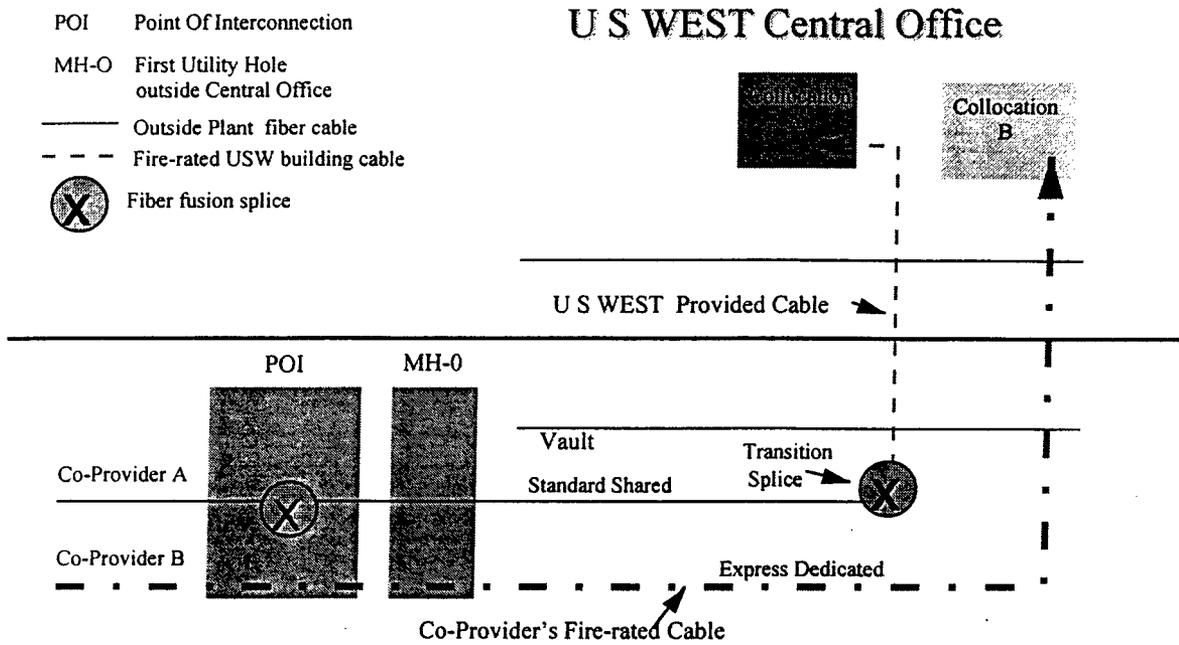
- Entrance facility utilizing ICB pricing for:
- Shared POI
- Dedicated Innerduct
- Dedicated Transition Splice to Fire-rated Cable, if needed
- Dedicated Fiber to Co-Provider Collocation Area
- Shared Fiber Protection
- Engineering and Labor for cable placement

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Created and updated by US West Collocation Product Management

Express Fiber Dedicated Entrance Options

- POI Point Of Interconnection
- MH-O First Utility Hole outside Central Office
- Outside Plant fiber cable
- - - Fire-rated USW building cable
- (X) Fiber fusion splice



Option 3

Collocation Policy Announcements

Out of Space Policy

- U S WEST is implementing this policy earlier than required by the FCC's rules and regulations in an effort to improve and clarify communications with our Co-Providers and state commissions.
- Effective May 10, 1999, U S WEST will implement the following process when it is determined that a specific request for collocation is denied due to space limitations within a U S WEST central office.
- At the conclusion of the detailed process identified below, U S WEST will provide the appropriate documentation to the state commission through the State Regulatory Attorney or State Regulatory Director. This process will be completed within a practical period of time.
- The Co-Provider will be supplied the information provided to the commission if requested via their Account Team representative and communicated in writing to the IAC for documentation.
- **Stage #1 (Day 1-4)**
If, during the feasibility process, the Common Systems Planning and Engineering Center (CSPEC) Collocation Planner determines that U S WEST is unable to meet a Co-Provider's application/request for any type of collocation or space size, the CSPEC Collocation Planner will communicate and review their findings with the Collocation Single Point of Contact (SPOC). The SPOC will pull the CSPEC drawings and re-verify space availability. If the SPOC verifies the "Out of Space" condition, the CSPEC Collocation Planner will review the CSPEC drawing to see if space exists for alternate forms of collocation. Any alternate form of collocation available will then be indicated on the drawings by the Planner and a package prepared for the State Interconnect Manager (SICM.)
- **Stage #2 (Days 5-7)**
The SPOC will discuss the application with the State Interconnect Manager (SICM) who will conduct a field visit to the office in order to review and validate the Central Office Equipment Facilities Management (COEFM) database reflects the actual office layout. The SICM will verify the initial denial and determine if alternate types of collocation are available. The SICM will utilize the drawings and follow "SICM Procedures for Out of Space Walkthroughs". The SICM is encouraged to have the Central Office (CO) Supervisor or CO Technician accompany them during their visit. The goal of this step is to ensure accurate determination of availability up to and including potential removal of obsolete or non working equipment. The SICM will mark the drawings with their findings where they differ, and suggest resolution if possible, up to and including reclamation.

- **Stage #3 (Days 8-9)**
 When the SPOC receives the SICM response for validation of an “Out of Space” Condition and proposed alternate solutions, the SPOC will prepare the appropriate final documentation package and forward it to the CSPEC Director for signature if the Out of Space Condition still exists. If space is found for the original requested collocation type and size, the original request information will be given back to the Collocation CSPEC Planner by the SPOC and a “Feasibility Yes” standard letter will be given to the IAC Project Manager by Day 9. If “Feasibility No” is the final determination for the original request, this information will be given to the IAC along with alternate solutions where available.
- **Stage #4 (Days 10)**
 The IAC Project Manager will fax either a “Feasibility Yes” or “Feasibility No” standard letter to the Account Team representative by Day 10. It will be the responsibility of the Account Team representative to send a templated letter to the Co-Provider noting this information to ensure no miscommunication. The Account Team representative must notify the IAC of the date and time the letter was delivered to the customer. If requested, the Co-Provider will have the opportunity to tour the central office within 10 days but has up to 30 days to arrange the tour upon receipt of the “Feasibility No” letter. The Co-Provider will be supplied with same floor plan diagrams furnished to the commission. Prior to the Account Team representative issuing a copy of the floor plan to the Co-Provider, the Co-Provider must sign a confidentiality letter. Tour and documentation requests shall be made of the appropriate Account Team representative.
- **Stage #5 (Day 11-20)**
 If the Co-Provider accepts a physical collocation alternative, U S WEST will consider the original order application met. Alternate types of collocation available to the Co-Provider’s original application must be responded to by the Co-Provider within 10 calendar days of the receipt of the IAC “Feasibility No” letter denying their original application. This short turnaround is necessary to continue processing their application for collocation on a timely basis and to not delay any other applicant’s request. Upon acceptance of a collocation alternative, the application will proceed in accordance with the intervals established in the Co-Provider’s interconnection agreement. The Quote Preparation Fee submitted for an original request will be applied automatically to any subsequent alternative requests accepted.
- Upon denial of the original collocation application, the Technical Regulatory Interconnect Planning (TRIP) Manager for Collocation will forward the appropriate documentation package including detailed floor plans and/or diagrams to the State Regulatory Attorney and State Regulatory Director simultaneously. This package should be sent each time a request is denied **even if an alternate form of collocation is accepted** by the Co-Provider. The State Regulatory Attorney and State Regulatory Director will provide the information to the commission in an appropriate manner, based upon the state commission’s requirements/preferences. Such information shall be classified as privileged and confidential.

- Should space be identified at a future date by the CSPEC Collocation Planner, the CSPEC Planner will follow-up on the original request by notifying the IAC of recent changes in availability. When the available space is identified, the IAC will notify the Account Team representative based on the date and time the original application was received and document the change in space on the "Space Availability" document. The Co-Provider will have 10 days to accept the available space or U S WEST will offer the space to the next Co-Provider in queue. These subsequent offerings and responses will be documented by the IAC Project Manager.

NOTE:

At no time in this Out of Space Process will the Account Team representative or the Co-Provider be contacted prior to Stage #4 due to the potential for correction or resolution of the original request. This process must be followed in order to comply with U S WEST's non-discrimination policy. It is imperative that the process be allowed to run its entire course to ensure we have exhausted all means to resolve Co-Provider requests for collocation.

Any changes and/or modifications to this policy will be communicated to the all U S WEST internal organizations by the Collocation Working Team.

Guidelines, Parameters and Timelines for Central Office Tours

U S WEST Communications, Inc. (U S WEST) provides central office tours to Co-Providers who may have been denied collocation space due to an "out of space" condition. U S WEST will provide tours to the Co-Provider upon request. The central office tour is conducted jointly and both companies are allowed business-related individuals. The tours will be arranged by the Co-Provider's Account Team representative through the U S WEST State Interconnection Manager (SICM). The tour will be conducted within 10 business days of the formal denial if requested by the Co-Provider or the Co-Provider can take up to 30 business days to arrange the tour.

The tours are intended to help the Co-Provider understand the out of space condition in the central office where a collocation application was denied. The tour is limited to Co-Provider representatives with direct business responsibilities. U S WEST reserves the right to have legal representation present if the Co-Provider brings a legal representative to the tour. To alleviate delays, the Co-Provider must inform U S WEST of legal representation or individuals with non-direct business responsibilities prior to the tour. Failure to notify U S WEST of these exception could result in a delay in tour schedule up to and including rescheduling or postponement.

Due to the sensitive nature of the digital switching equipment, special procedures must be followed when working in the U S WEST central office. Electrical interference, electro-static discharge and magnetic interference must be avoided when in this environment. The following is a list of parameters governing these central office tours:

1. Touching live circuitry is not allowed.
2. Smoking or any type of open flame is not allowed within the central office.
3. Security doors must be closed upon when entering or exiting the building or other parts of the building.
4. Cellular phones shall not be used while in the U S WEST central office.
5. Magnetic or electro-mechanical devices are not allowed in the U S WEST central office. Motorized devices shall not be allowed into the central office however in those instances where a motorized wheel chair is utilized by an individual, alternative arrangements will be made if U S WEST is notified in advance.
6. Recording devices are not allowed in an office where the Co-Provider has requested and is conducting a tour. This list includes but is not limited to video cameras, digital cameras or any other type of camera. Audio recording devices are also disallowed due to network security concerns as well as privacy concerns of U S WEST central office personnel, equipment and other parties conducting work within the central office. Open-toed shoes are not recommended due to wiring hazards, soldering irons, and overhead cable racking installations and other hazards that may be present within the central office. All individuals shall be observant of these possible hazards when touring or working in the central office.
7. U S WEST suggests casual clothing and sturdy footwear for those individuals wishing to tour the cable vault, power room or other areas in the office where climbing may be required in order to gain access to some areas.
8. Some areas of the central office, such as power rooms and cable vaults and CEVs, can contain hazardous materials or combustible gases. It is imperative that individual touring the central office understand and adhere to safety procedures while in these areas. Questions should be directed to the U S WEST representative present during the central office tour.

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Created and updated by US West Collocation Product Management

9. Visitor's badges shall be worn by each individual while touring the U S WEST central office. A U S WEST representative shall escort the group touring the central office at all times.
10. Should any Americans with Disabilities Act provisions be needed for Co-Providers representatives (such as a manual wheelchair alternative), U S WEST will assist in whatever way we can. Knowing about such items before the tour will minimize delays.

Early Access to Collocation Space

In order for Co-Providers to place their collocated equipment more quickly, supporting their Ready for Service expectations, U S WEST is pleased to offer "Early Access" to Co-Providers. Early Access will be available with Caged or Cageless Physical Collocation. This new option will allow Co-Providers to begin their equipment installations when their collocation space is physically conditioned, but prior to when other supporting infrastructure work is completed by U S WEST.

Early Access will be offered when a Co-Provider requests access to their space prior to the "acceptance" date provided to them on their initial quote for Collocation. The Co-Provider must pay the remainder of the quoted non-recurring charges before Early Access is granted. The "Early Access" date will be negotiated by U S WEST and the Co-Provider on a site specific basis. All appropriate recurring charges will begin on the negotiated date.

Early Access will be coordinated between the Co-Provider, the U S WEST Product Manager, and the State Interconnection Manager (SICM), by central office location.

Early Access will be provided when the work space is conditioned for the physical placement of the Co-Provider's collocated equipment, and when working in such a space would meet all applicable state and federal safety laws and regulations. For Caged Physical Collocation, the enclosure must be complete before Early Access is granted.

The time interval between the Early Access date and the final "acceptance" date will be used by U S WEST to complete the remaining infrastructure required for the Collocation job. Some interference could occur with the Co-Provider's equipment installation due to possible Common Systems work and it should be understood that U S WEST will work with the Co-Provider as needed to coordinate the efforts of both parties. This work could include but is not limited to the following:

- Placement of power cables and associated racking
- Any necessary heating and air conditioning
- Other miscellaneous types of infrastructure work

Providing the Co-Provider with Early Access to the collocation space does not negate U S WEST's responsibility to complete all work associated with the collocation quote by the committed Ready for Service date. The following conditions must be met before Early Access can be granted:

- Vacant space, conditioned for the installation of transmission equipment, must be available in the Central Office.
- Co-Provider employees, requiring access to the Central Office, must be approved by U S WEST Security and have a valid, U S WEST issued Identification Card.
- A card reader must be installed at the central office, or keys must be provided to each authorized Co-Provider's employee.
- A Method of Procedure (MOP) must be prepared by the Co-Provider detailing their activity during the Early Access period. The MOP must be submitted to the SICM, and approved by the U S WEST central office supervisor.

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Created and updated by US West Collocation Product Management

The State Interconnect Manager (SICM) will coordinate the work efforts between the Co-Providers, U S WEST installation vendors, Real Estate contractors, and U S WEST LNO (Local Network Personnel) to schedule access to the building. The Co-Provider will be expected to clean up the work area daily including the removal of all trash as part of this operation. The Collocation Order form will reflect the desire for Early Access to the space. Additional charges may be included as part of the quote for the extra coordination that will be required with this request.

Since the Collocation area will be under construction by U S WEST when Early Access is granted, certain items may not be available at the time. As an example, AC power may not be completed in the Co-Providers specific area. If the Co-Provider requires AC power for tools, the use of existing building AC outlets is acceptable upon approval by the U S WEST Central Office Manager and/or the SICM as a defined requirement in the MOP. In addition, an equipment staging area may not be available. If U S WEST has such an area in the Central Office, U S WEST will make it available to the Co-Provider subject to the same restrictions U S WEST imposes on its own employees and vendors.

It is U S WEST's policy to provide Co-Providers Early Access to their collocation space subject to the provisions and conditions stated above. Any additional costs incurred by U S WEST may be charged back to the Co-Provider per the terms and conditions as stated in the original collocation agreement.

48 Hour Pre-Application Review

Effective 1/1/99 U S WEST will implement a process to review collocation application forms within 48 hours of receipt. This is a voluntary step for the Co-Provider but if requested, the Co-Provider's Account Manager must contact Jennifer Brown in the IAC (303-707-7598) to set up the meeting. The purpose of this meeting will be to review the application form and ensure the application reflects the Co-Providers requirements such as power, terminations, and entrance facilities along with any other special requests.

The goal of this process is to avoid costly delays due to changes in the collocation request by reviewing the application details. In the past, these changes have caused U S WEST to extend the ready for service date past the original due date.

Groups represented at this meeting may include the following:

- Co-Provider Engineers
- Co-Provider Project Mangers
- Co-Provider Order Writers
- U S WEST Engineers (Common Systems & IOF)
- U S WEST Project Manager (IAC)
- U S WEST State Interconnect Manager
- U S WEST Account Manager

The intent of this meeting is for the engineers from both companies to discuss the technical requirements around the Co-Provider's Collocation request. If the Co-Provider feels the need to have legal representation present, U S WEST requests notification in order to have legal representation present. To reiterate, this meeting is voluntary and the Co-Provider must initiate this additional step with the Account Team. However, the Account Team should remind the Co-Provider of this process and the importance of requesting it.

U S WEST to Provide Equipment Cables

Effective immediately, U S WEST will offer the customer the option to have U S WEST provide the equipment cables required to connect the customer's central office equipment to the ICDF. This material should be ordered in conjunction with Co-Provider's initial Collocation request and noted in the remark section on the application. Alternatively, the Co-Provider may provide these cables as part of their collocation build-out. If ordered after the collocation request has been processed a change request will need to be submitted with a Quote Preparation Fee reflecting the requested changes/modifications. The customer may continue to provide this equipment cable as part of their Collocation build-out if they wish.

Standard state specific non-recurring rates have been developed for the equipment cable if provided by U S WEST. A standard recurring monthly charge for maintenance by state also applies. These charges will be included in the Collocation quote provided to the Co-Provider.

Co-Providers will be able to order equipment cable to ICDF terminations in the following increments.

- DSO - 100 pair increments
- DS1 - 56 pair per 28 channel increments
- DS3 - 2 coax per termination

Customers shall select this option by specifying in the Remarks Section of the Collocation order form "U S WEST provision of ICDF terminations per block". In the future the application form will be revised in order to make this request easier for the Co-provider.

U S WEST offers this option in order to accommodate Co-Provider's request and to simplify the Collocation build-out process. If the request for the equipment cable is made after the initial application has been submitted, it could lead to some delay in the Ready for Service date. Please refer to the following:

Re-issue of Equipment Cable Policy

If the request for the equipment cable is made subsequent to the initial application a change form and additional Quote Preparation Fee are required. Requesting the equipment cable after the initial application can result in a delay in the RFS date since additional engineering and material ordering will need to take place. However, if these changes are made during the optional pre-application meeting, a change form or QPF is not required nor will the RFS date be affected.

The following guidelines have been established to assist the Account Teams and our customers when submitting a change request to a collocation job that is in progress.

- If an Interconnection Agreement specifies a 90 calendar day construction interval, the change form and additional QPF must be received by U S WEST prior to day 56 of the construct phase in order to avoid a delay in the RFS date.
- If an Interconnection Agreement specifies a 45 calendar day construction interval, the change form and additional QPF must be received by U S WEST prior to day 12 of the construct phase in order to avoid a delay in the RFS date.
- Change forms received after those days stated above will result in a 24-business day (approximately 5 week) delay to the committed RFS date. The table on page two documents U S WEST's need to extend the RFS date by 24 business days.

In Business Days:

Day 1	Account Executive (AE) receives change form and QPF from the Co-Provider.
Day 2	IAC receives change form AE, processes the change form and provides to the Engineering Point of Contact (EPOC).
Day 3-4	EPOC pulls package, recognizes cable lengths and submits order for the equipment cable via COEFM.
Day 5-6	Network Procurement Center (NPC) orders equipment cable based on information received from the EPOC.
Day 7-20	Equipment cable is delivered to the warehouse.
Day 21-24	Equipment cable is delivered to the central office and installed by U S WEST or contracted installation crew.

Collocation Inspection and Variance Notification

Effective immediately, U S WEST will implement the following process for "quality inspection variances" of Co-Provider collocated equipment prior to connecting to the U S WEST network.

Co-Providers must meet all appropriate U S WEST documented technical requirements before -48v DC power will be fused in order to serve the collocated equipment. To verify this, U S WEST will perform a quality control review of the Co-Provider installation on a random basis to ensure conformance to the network safety and fire and life safety requirements listed in the U S WEST Technical Publications. This is the same quality audit process U S WEST uses for its own vendors as stated in Technical Publication 77369. Observed deviations will be brought to the Quality Auditors immediate attention for review.

The State InterConnect Manager (SICM) will convene a meeting between all new Co-Provider vendors and the local Quality Auditor. Also, the SICM will convene a meeting between first Co-Provider to install a physical collocation in a central office and the local Quality Auditor.

Quality control inspections consist of verification of the correct installation of selected items that are critical to the safety of the network. This is not a verification of all jobs. The audit form will identify the areas of non-conformance and a time frame for correction. The items identified as "failed" must be corrected before the -48 volt DC power will be supplied to the collocation equipment.

The quality audit will be documented on FORM RG47-0145 showing the date of review, the Central Office, the Co-Provider, the inspector, and identify where the installation failed. Further documentation will identify if a physical inspection was done or if the installation was accepted without an inspection per Technical Publication 77369.

The quality auditor will forward the audit form to the Product Manager, Account Executive, Interconnection Availability Center and the State Interconnection Manager. The SICM will forward the form to the Co-Provider with the faults identified. Faults must be corrected before the space can be occupied. If not corrected, the -48 volt DC power will not be fused until the defect is corrected.

The Co-Provider will return a signed copy of the audit form to the SICM and the Account Executive certifying the faults have been corrected and the installation is ready for a re-inspection. The SICM will forward the form to the quality auditor to initiate the installation acceptance process identified above. Again, this inspection will follow the guidelines in Technical Publication 77369.

Co-Provider Security Access

The attached policy for obtaining ID Cards for new employees or contractors for Co- Providers was previously transmitted on Dec. 14, 1998. We have added a new section on how to handle security verification or renewal effective immediately.

Obtaining New U S WEST ID Cards for Co-Provider Security Access

1. Co-Provider submits order forms and completed "Employee Access" request list to State Interconnect Manager (SICM).
2. SICM forwards the "Employee Access" request list to Corporate Security for a Social Security background check. (2 Days)
3. Corporate Security notifies the SICM of "Cases Found".
4. SICM notifies Co-Provider of Access Denied Cases.
5. SICM sends Co-Provider the Security Agreement and a Collocation Building Access Request Form to be completed on each employee requesting access. This form identifies detail required to provide specific access to central offices for each employee based on hours, location, day, etc.
6. Co-Provider completes all associated documentation and returns to the SICM.
7. SICM signs the Building Access Request Forms and forwards, via facsimile, these forms to the respective Network Central Office Operations Director(s) for the State(s) requested. (2 days - each)
8. Network Central Office Operations Director(s) reviews, approves and forwards signed documents to the SICM. (2 days - each)
9. SICM verifies that forms are correctly and completely filled out and that they have the proper signatures for the access being requested. Network Element Security (NES) can be contacted by the SIMMs at 800-210-8169 if there are question about forms or approval requirements. If forms are completed correctly, SICM then sends approved forms back to Co-Provider.
10. Co Provider distributes approved forms to employees to make appointment with Access Control Center for picture ID.
11. Co-Provider employees call ACC, make appointment and visit ACC to have picture ID's taken and combined access card provided. Co-Provider must bring completed and properly approved forms with them to the ACC so ID cards can be issued.
12. ACC issues ID and forwards approved form for ID activation to NES. (3 days)
13. If the forms received by NES are not correctly and completely filled out with the required information and approvals, NES **will not** activate the ID's for access. NES will return the incomplete forms to the respective SICM sponsoring the Co Provider requesting the access. The forms will have to be corrected and returned to NES who will then activate the cards accordingly.

When conducting work on the InterConnect Distribution Frame (ICDF) for both Caged and Cageless Physical Collocation, Co-Provider employees are unescorted.

Updated on: 07/05/00

Created and updated by US West Collocation Product Management

When conducting work on U S WEST frames, Co-Provider employees should be escorted. Product Management has an agreement with Central Office Switching on these procedures.

Security Verification and Renewal Process

The Network Element Security organization will furnish a quarterly summary to the State Interconnect Managers for review of all authorized Co-Provider employees and contractors.

1. The SICM will have responsibility to review those expiring within the next 4 months and removal of those no longer requiring access.
2. SICM's will now have authority for renewal and removal in updating lists with the NES group.
3. In order to improve overall security, the NES work group will automatically remove those individuals whose dates expire unless notified otherwise by the SICM.

Cancellation of Collocation Jobs

Any request to cancel a collocation job must be in writing and forwarded by the Co-Provider to the Account Team. Upon receipt of the written cancellation, the Account Team must notify the IAC, SICM, and Product Management. Following this call, the Account Team representative must fax the written notification to the same groups.

Upon receipt of the cancellation, the IAC will review the Common Planning Document (CPD) and pull any work and the associated cost incurred up to and including the date of the written notice. At that point, the dollar amount from the CPD will be subtracted from the 50% down payment and the difference will be refunded back to the Co-Provider.

Collocation Completion Packages

Completion packages must be e-mailed to Barbara Jackman at bjack4@uswest.com by the Account Team. Mailing or faxing of the completion forms, in the past, has led to delays in the building of the Co-Provider's ACTL information (11 digit CLLI code) into the IABS and EXACT databases. E-mailing this information will ensure timely receipt and entry of the ACTL information prior to the Co-Provider submitting service order requests. To the extent the Account Team has notice, Barbara requests that the ACTL information be forwarded to her at least two days prior to the Co-Provider submitting either ASRs or LSRs into U S WEST for elements to their collocation.

Issuance of ACTL Information

A Co-Provider has multiple options for feeding a collocation site. This memo addresses the ordering of Private Line Transport Services (PLTS) into a collocation in lieu of a Co-Provider placing their own fiber entrance facility. Before an order for a finished service will flow to downstream systems, the ACTL information has to be built into EXACT and IABS. In order to ensure the timely installation of the PLTS, U S WEST is making the following changes in the current process.

Day 10 - U S WEST will provide the ACTL information to the Co-Provider at the time of the kick-off meeting, usually around day 10 in the construct phase. The Co-Provider is instructed to include the ACTL information to U S WEST when submitting the order for PLTS.

Day 10 - U S WEST will advise the Co-Provider of the Ready for Service (RFS) date of the collocation build and ask the Co-Provider to request a due date for the PLTS within a week or two of the collocation RFS date. Understand the Co-Provider must have either a backboard of some type in the collocation space or a bay in which to mount the terminating equipment where the PLTS will reside. This can not be accomplished until the space is turned over to the Co-Provider so they can begin equipment installation.

Day 12 - Currently the SICM is providing information to the Account Team on all collocation requests. The information notes Customer name, BAN #, State and Central Office Location including name and CLLI information. We are recommending that the SICM concurrently provide the same information to Barbara Jackman so she can build the information into EXACT and IABS which will allow the order to flow to the downstream systems.

Day 90 - (Approximately) Collocation job is complete and the PLTS should be installed if the terminating bay or backboard is in place. Once the job is completed and the Co-Provider has submitted the final 50% payment and signed the completion package, IABS will begin the billing of the monthly recurring charges

Updated on: 07/05/00

Created and updated by US West Collocation Product Management

Issuance of Early APOT

This policy is a clarification to the members of the Collocation Working Team, Account Team representatives and our Interconnection customers on issuance of early APOT.

- The concept of “early APOT” was introduced in 1998 and was intended to give the Co-Provider the APOT 10 days prior to the collocation build-out or Ready for Service (RFS) date, hence the name “early APOT”.
- An additional requirement of “early APOT” is that the Co-Provider pays 100% of the remaining Non-Recurring charges to receive the information.
- However, paying the remaining balance does not guarantee that the Co-Provider will receive this information prior to day 80 of a 90-day build-out interval.
- Existing U S WEST processes require the F1 group to build the APOT into TIRKS no later than day 80. Therefore, it is outside of the existing process to expect the APOT information any earlier than day 80 of the collocation build-out.
- This APOT information communication and delivery should not be confused with providing the ACTL CLLI code at Day 10 of the construct process only when the Co-Provider wants to order Finished Services in lieu of fiber entrance facilities to their collocation site. The ACTL information is required when placing an ASR for Finished Services to the collocation site.

If you have questions concerning this policy clarification, call Steve Nelson on 303-707-7201. Please share this information with our Interconnection customers as quickly as possible to avoid additional confusion.

Collocation to Collocation Equipment Cable Connections

If one Co-Provider desires interconnection with another Co-Provider within the same U S WEST central office, U S WEST is offering the following alternative.

Beginning immediately, a Co-Provider can submit a collocation applicable form and the applicable Quote Preparation Fee (QPF) to U S WEST requesting Interconnection between collocation spaces. Upon receipt, U S WEST will perform a feasibility study to assess the need for any additional overhead racking and sum the total footage of all racking required to get between the collocation sites. The charge for utilizing the overhead racking is billed to the Co-Provider on a non-recurring basis.

U S WEST will provide the Co-Provider with a list of U S WEST approved vendors and the Co-Provider will be responsible for coordinating the placement of the cable on the racking leased from U S WEST. The U S WEST approved contractor shall comply with all central office practices when placing the Co-Provider's equipment cable.

The Co-Provider is responsible for the following:

- Issuing the application and submitting the QPF
- Ordering and delivering the equipment cable to the central office
- Contracting with a U S WEST approved vendor
- Issuing, understanding and complying with the MOP
- Installing the equipment cable on racking identified by U S WEST during feasibility
- Installation of all termination blocks within each collocation site
- Installation of any regeneration equipment required in their collocation site

The Co-Provider is also responsible for the end-to-end design of this connection of collocation elements to ensure that the resulting service meets their customer's needs. Depending on the distance parameters of the interconnection between the collocation sites, Regeneration may be required. If Regeneration is required the Co-Provider must order and install the Regeneration equipment at their expense. Depending on the overall length of the cable, Regeneration equipment may be required in both collocation sites.

This product is for interconnection of collocation sites only. Combinations of separate elements are addressed by the Combination Team.

Collocation and Unbundled Loop Test Access Points

This memo is a clarification on the test points within U S WEST central offices where Collocation has been requested. The Co-Provider will have access to the test points, defined in this document and the attached drawings, for the purpose of testing and maintenance of the equipment cable terminations. Access is granted once the Physical Collocation build-out is complete and accepted by the Co-Provider. In those offices where a ICDF Frame, or equivalent, is place the Co-Provider will have test access on a 24x7 basis.

The equipment cable is the cable that extends from a collocation area to some form of appropriate cross-connect device within the U S WEST central office. The equipment cable is provided by either the Co-Provider or, upon request and for a price, U S WEST. In either instance, test access points for the Co-Provider do not change. In many cases today this IDF is the ICDF Frame.

The ownership of the equipment cable is that of the Co-Provider even if U S WEST agrees to order and install the equipment cable as part of the initial collocation build-out. At no time does U S WEST assume neither ownership nor maintenance responsibilities for the equipment cable. Due to the ownership issue, the Co-Provider must have access to both termination points should any maintenance or troubles arise on the equipment cable itself.

The following drawings are intended to illustrate and clarify the test points in each of these scenarios:

- Initial Collocation Build-Out
- DS0 Level Services
- DS1 Level Services
- DS3 Level Services

Completion of Facility Build Out (Installation by U S WEST) Testing of the entrance facility

- The responsibility to run the fiber jumpers is assigned to the CO vendor under the direction of the ICC.
- The EPOC engineer has responsibility to engineer and order the fiber jumpers and to assign the fiber jumpers on a word document. This will also ensure the information is entered into TIRKS. This work will be part of the CO vendor installation package.
- OSP has responsibility to test through both FDPs to ensure the fiber jumpers have been run properly, and through the transition splice, through manhole O, and through the POI splice.
- OTDR readings must be submitted to the ICC upon completion of this phase of the Collocation build-out.
- This function must be complete by day 85 of the construct phase for a standard order of 90 days.
- In the event the Co Provider has not installed its cable in the POI prior to U S WEST turnover RFS date, the Co Provider should call the SICM to schedule splicing and subsequent connectivity test and turn-up.
- After fiber is placed from the FDP to the collocation site, the CO vendor will ensure a test is also performed on this piece of fiber. If possible this should be done simultaneously with the OSP fiber testing portion of the job.

Testing of Co Providers Equipment Cable for physical collocation in the Central Office

- When the collocation site is turned over to the Co Provider as Ready for Service, it is turned over by a SICM notification. At this time, arrangements will be made to test the equipment cable, but no later than within 60 days of cage turnover because they have not terminated their end of the tie cable.
- The Co-Provider will test the equipment cable for continuity between their physical collocation site and the appropriate cross connect device termination in conjunction with the CO vendor. This may be at the ICDF frame, TMDF, or DSX1 or DSX3 termination.
- The SICM role is one of coordinating between the CO-PROVIDER and the installation vendor.

Co-Providers have access to the ICDF Frame today for testing and element combinations. If the Co-Provider is not satisfied with the extent of the testing that U S WEST performs or if the Co-Provider wants to verify their dial tone via some ANI testing, they can access the central office and conduct this additional testing themselves.

Test Points in a Collocation Build-Out

Test Points

“A” - “B” Operations & Tech.

OTDR reading to assure fiber continuity and loss through splice and patch cords in shared fiber.

“B” - “C”

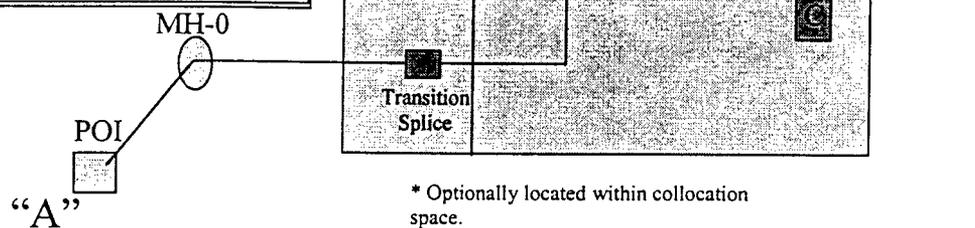
USWI or Contractor

USWI Test 2 pair in each 25 pair compliment.
Example: Test prs 1 & 25, 26 & 50, 51 & 75....

“D” - “E”

US WEST I&M/COT

One of four testing options when ordering the bundles elements

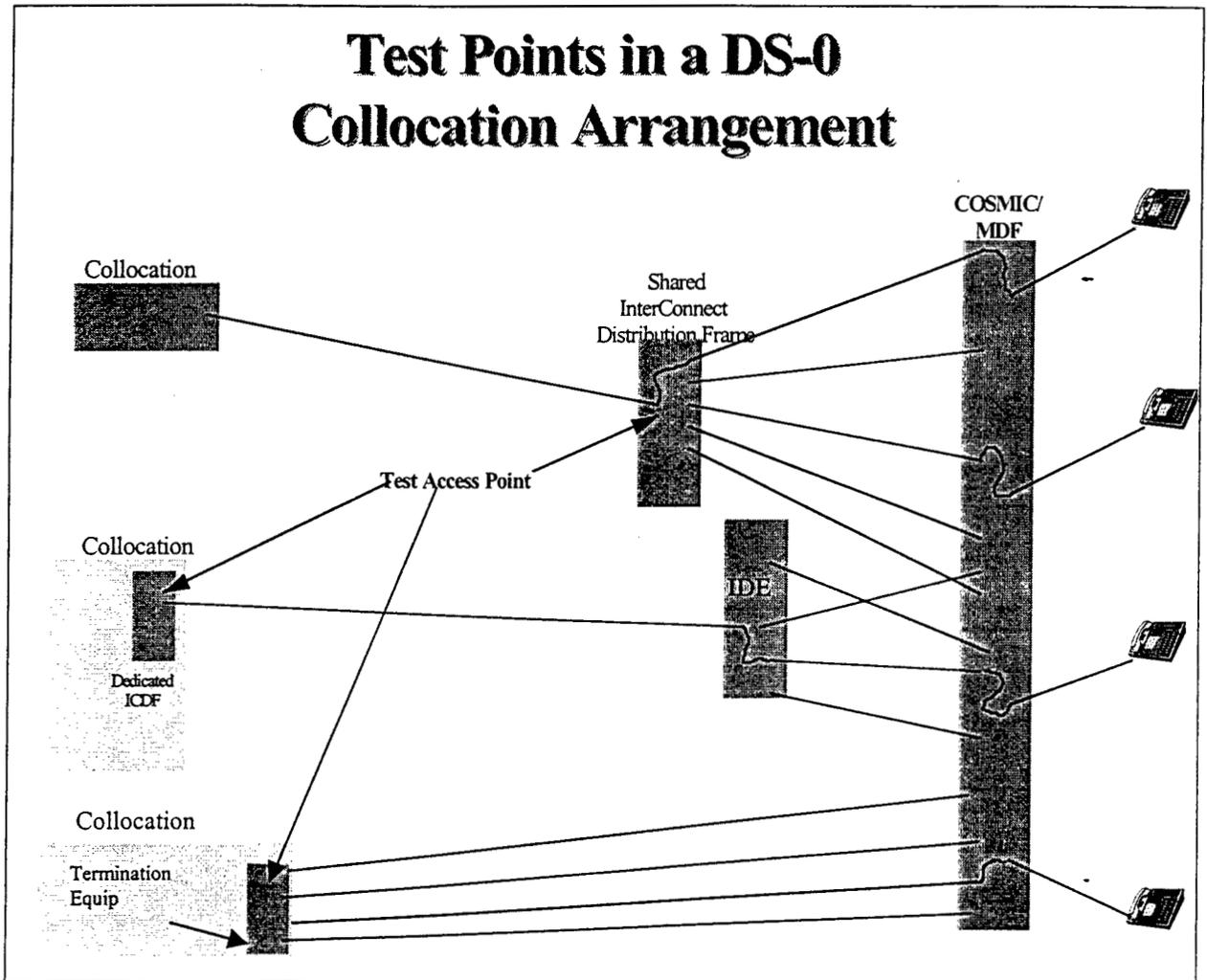


Testing of the Unbundled Element

- We have processes in place today to test the unbundled elements as they are ordered, provisioned and installed. Technical parameters are documented in Tech Pub 77384.

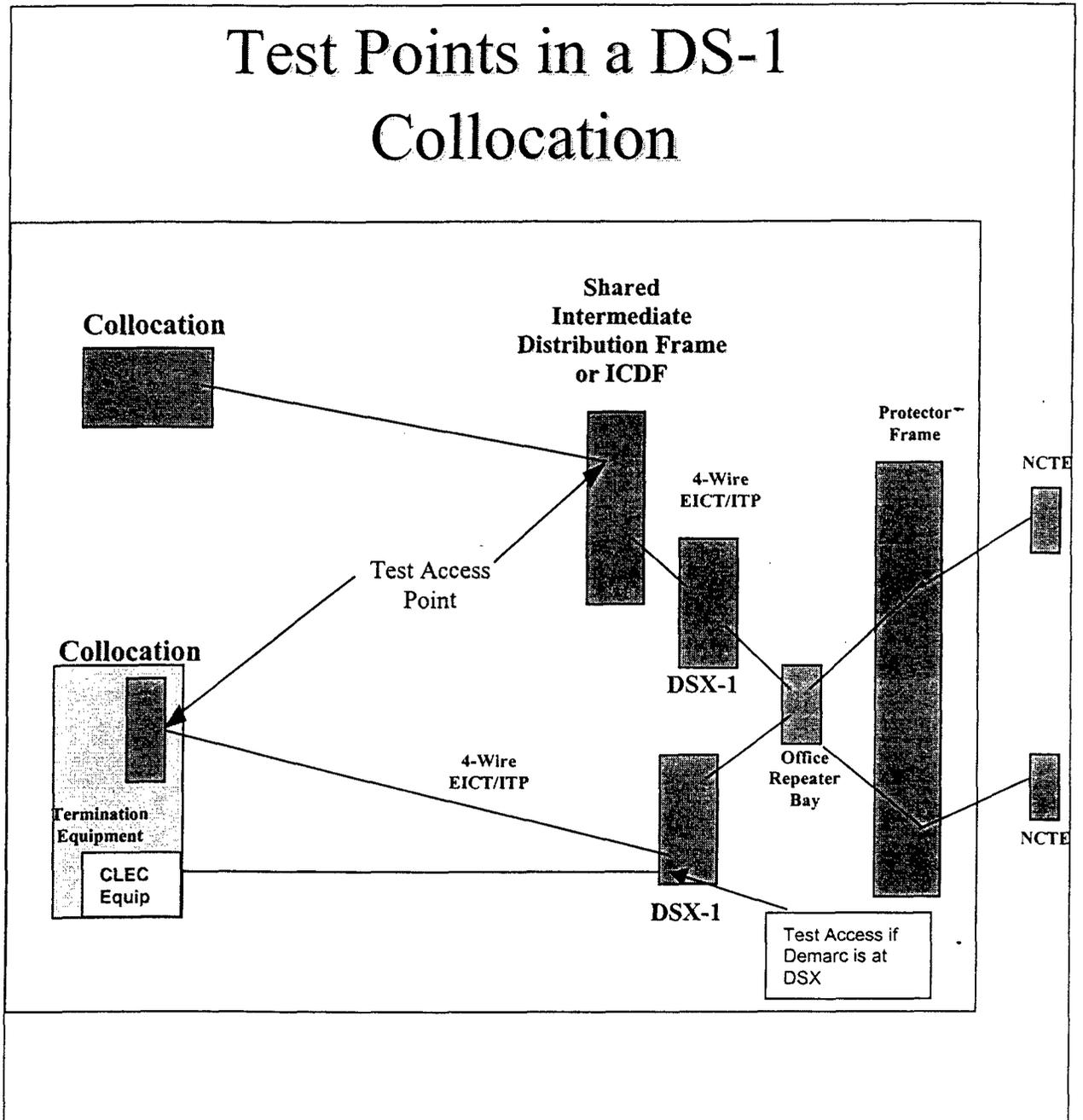
Test Point(s) at a DS-0 Level

At the DS-0 level, the Co-Provider will have test access at the vertical side of the ICDF Frame, if applicable, or to the terminal block within the collocation space in those offices and states where ICDF Frames have been disallowed. The following drawing documents those points. The test access point is wherever the Co Providers equipment cable terminates from their origination. This can include the ICDF frame, IDF, or TMDF.



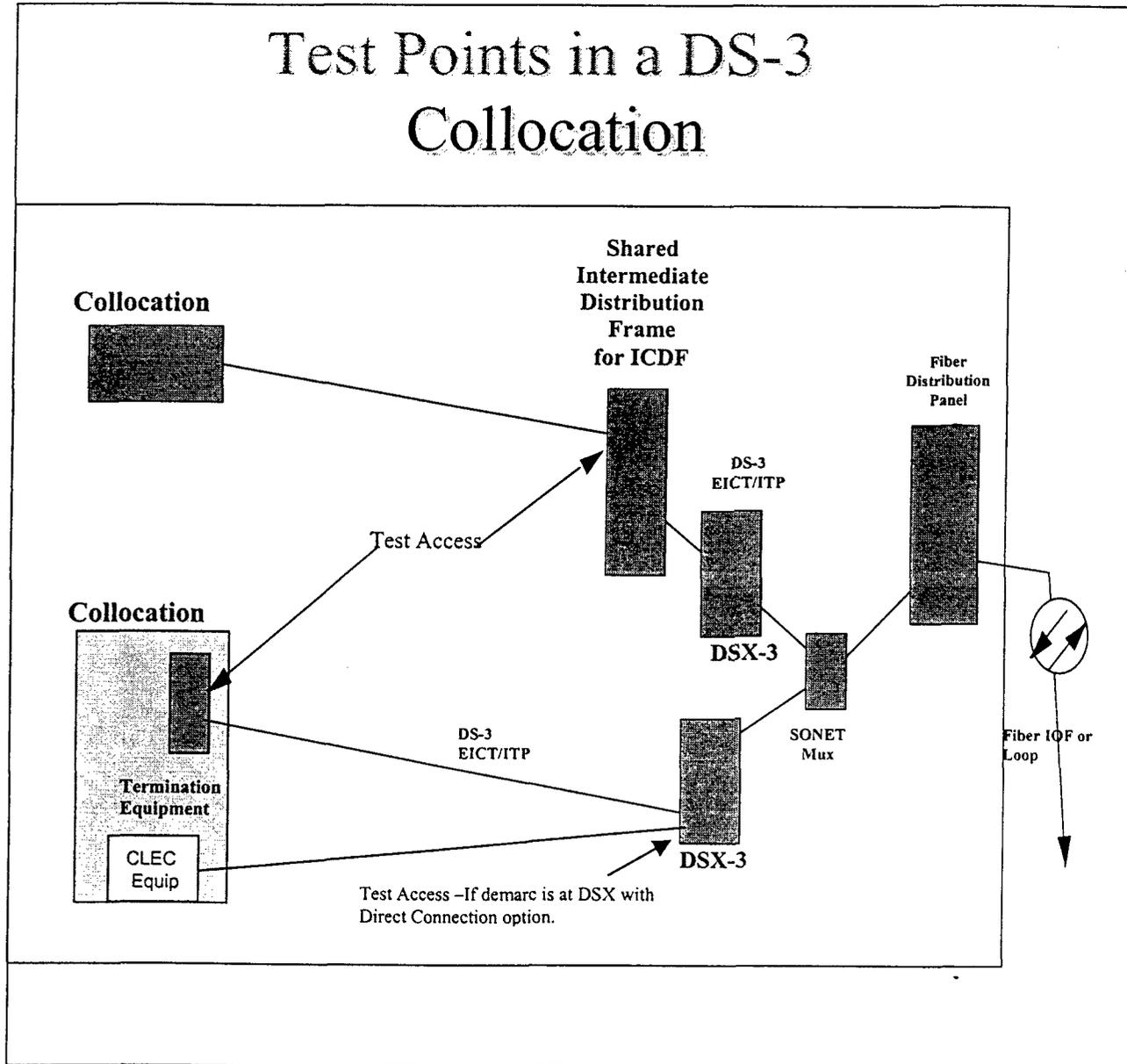
Test Point(s) at a DS-1 Level

At the DS-1 level, the Co-Provider can test at either the Shared ICDF, DSX, or at a dedicated frame within their collocation space - either caged or cageless physical. The following drawing documents those points. In addition they can test where their cable terminates on the DSX1 Panel.



Test Point(s) at a DS-3 Level

At a DS-3 level, the Co-Provider can test at either the Shared ICDF, DSX frame or at a dedicated DSX-3 panel within the Co-Providers collocation space - either caged or cageless physical. The following drawing documents those points. In addition, the Co Provider can test where their ITP terminates.



Definitions

Shared ICDF - The ICDF comes in three different capacities (DS-0, DS-1 and DS-3) and is divided into two distinct sides. The vertical side of the ICDF houses the equipment cable termination originating from the Co-Provider's collocation. The horizontal side of the ICDF houses the terminations of the Interconnect Tie Pair (ITP) and connects the ICDF to the U S WEST Main Distribution Frame (MDF).

Dedicated ICDF - When requested U S WEST will provision a dedicated ICDF for the exclusive use of one Co-Provider. The Co-Provider will have access to the vertical side of the dedicated ICDF for testing purposes and, depending on contract language, for element combinations also.

Intermediate Distribution Frame (IDF) - In those cases where an Intermediate Distributing Frame (IDF) has been designated as the ICDF the Co-Provider will have access to those terminations on the IDF, toll frame, or DSX1 or DSX3 terminations. Under the recent March 18, 1999 FCC 706 order we can no longer require escort nor limited time of day access for Co-Provider testing of their equipment termination points.

Direct Connection- Direct Connection provides an uninterrupted path from the collocation space to an existing frame. When requested, U S WEST will provision the collocation terminations directly to an existing frame, bypassing the ICDF. This existing frame will be the same frame that U S WEST uses to terminate the service i.e. 911, LIS, etc. If these terminations are on a COSMIC™ frame, standard engineering practices will be followed to comply with short jumper concepts. Time frames and pricing are on an individual case basis. Direct connections may be performed at a POTS, DS0, DS1, DS3, and optical level.

Finished Service - A Finished Service is any normal or traditional service sold by U S WEST in a tariff, contract, or catalog. The Finished Service typically consists of a number of network elements connected together in a designated fashion. U S WEST assumes design and record keeping responsibility for the service. The Interconnector still has responsibility of design and record keeping of any additional facilities or equipment that are added to the U S WEST -provided Finished Service. These services are described in catalogs, contracts, and technical publications.

U S WEST/CLEC GUIDE TO PROVISIONING DIRECT CONNECTIONS

Purpose

This document describes the process by which U S WEST establishes for a CLEC a dedicated tie cable from its collocation space to a termination on the same frame that U S WEST uses to terminate established trunking or signaling for the same types of services (e.g. E911, Common Channel Signaling). This document compliments the Interconnect and Resale Resource Guide (IRRG) Collocation section and other U S WEST documents by clarifying the provisioning of a somewhat unique interconnection request. This document is intended to be used by both CLECs and U S WEST employees with provisioning responsibilities.

Process Outline

Typically, there are four major steps in the provisioning process:

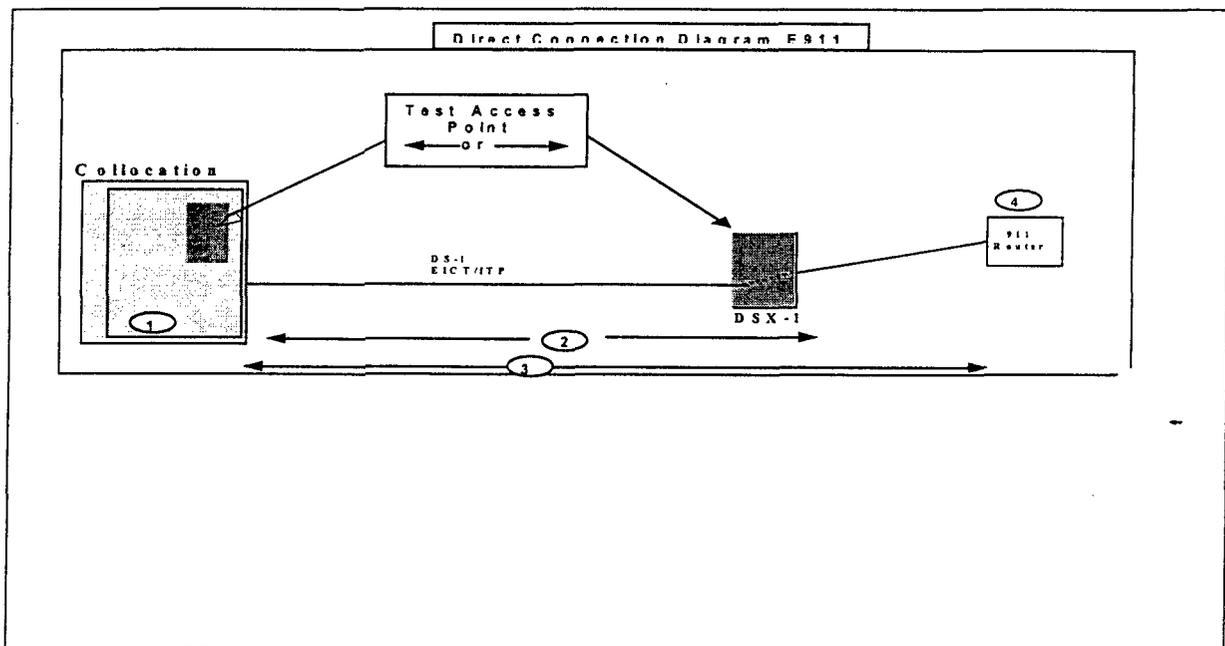
1. Establish Collocation;
2. Establish Direct Connection tie cabling;
3. Establish Transport on the Direct Connection tie cabling; and
4. Route desired service type onto transport facility

The following are illustrations of the main steps involved in provisioning Direct Connections:

E911	Page 43
Common Channel Signaling	Page 48

DIRECT CONNECTIONS FOR E911

The four steps are illustrated below for arranging E911 trunking via collocated facilities:



*See Attachment A for example of CLEC Collocation Multi-Floor Configuration

*See Attachment B for descriptions and diagram of Demarcation Options

Process Details for E911 Direct Connections

1. Collocation

- 1a. CLEC fills out the **Collocation Application and Co-Provider CLEC Information Form (Version 6.0)**. Copies of the forms and instructions can be found at URL:
http://www.uswest.com/carrier/guides/interconnect/html/collocation_products_1.html
- CLEC can find documentation for Collocation by accessing URL:
<http://www.uswest.com/carrier/guides/interconnect/html/collocation>

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Created and updated by US West Collocation Product Management

- 1b. Assuming CLEC accepts U S WEST's collocation quote, U S WEST provisions collocation order, e.g. facilities, power, lighting, ventilation, synchronization.
 - U S WEST employees may find additional information on Collocation provisioning, including Direct Connection cabling, in the **Wholesale Interconnection Operations Guide at Tab 10.**
- 1c. Terminations are constructed inside the collocation space. Spare terminations must be equal in quantity and service level to the Direct Connections requested. This termination may or may not become the demarcation between networks.

2. Establish Direct Connection Tie Cabling:

- 2a. CLEC fills out **Direct Connection (DC-POT) With Collocation Form (DC050900)**. Copies of the form and instructions can be found at URL:
<http://www.uswest.com/carrier/guides/interconnect/html/collocation>
 - CLEC documentation for Direct Connection options can be found in the IRRG at URL:
<http://www.uswest.com/carrier/guides/interconnect/html/collocation>
 - Additional CLEC documentation for Direct Connection options are also available in U S WEST **Technical Publication 77386, Chapter 3 (Interconnection Arrangements) and Chapter 16 (Interconnection with Finished Services)**. CLEC electronic review of technical publications is available at URL:
http://www.uswest.com/carrier/bulletins/tech_pub.html
Paper copies of U S WEST Technical Publication 77386 may be ordered from: Faison Office Products Company, Suite 200, 3251 Revere Street, Aurora, CO 80011.
 - It is recommended that a joint planning session be held between the CLEC and U S WEST to determine

the most efficient routing and ensure mutual understanding of technical requirements.

2b. Assuming CLEC accepts U S WEST's collocation quote, U S WEST plans, designs and installs Direct Connection facilities from CLEC demarcation to the same frame that U S WEST uses to terminate established E911 end office trunking to the E911 Selective Router.

- U S WEST employees should refer to Tab 10 of Wholesale Operations Guide, the Collocation Process Flows, and to the Architectures, Models, and Configurations. The U S WEST Model is **M-INTRCT-TERMS** (Collocation Terminations in Central Offices). The U S WEST Configuration Guide is **C-CTERM_FNSHSVC** (Finished Services for Collocation).

2c. CLEC gets updated Alternate Point of Termination (**APOT**) from U S WEST. A copy of the APOT Form is provided as **Attachment C**. The CLEC cable naming key is provided as **Attachment D**.

3. Establish Transport on the Direct Connection Tie Cabling:

3a. CLEC fills out **Access Service Request (ASR)** and **Transport Request** forms. These forms are attached to this document as **Attachments E and F**, respectively.

- The **ASR** form is also found at the end of the Ordering and Billing Forum's **Access Service Request (ASR), Access Service Ordering Guidelines Industry Support Interface, ATIS/OBF-ASR-001**. The ATIS website is located at:
<http://www.atis.org/atis/clc/obf/obfdocs.html>

- The **Transport Request** form is found at the end of the Ordering and Billing Forum's **Transport Form Preparation Guide, Access Service Ordering Guidelines Industry Support Interface, ATIS/OBF-ASR-005**.
- 3b. CLEC enters tie cable termination addressing from the **APOT** document into the Cross Connect Equipment Assignment (CCEA) field (#45) of the **Transport Request** form.
- 3c. CLEC gets **Firm Order Confirmation (FOC)** of the transport order from U S WEST. **FOC** includes facility name (ECCKT) and Design Layout Record Date (DLRD). A copy of the Confirmation is provided as **Attachment G**.

4. Route E911 Messages onto Transport Facility

- 4a. U S WEST account team member completes **RG 29-0029 (911/E911 Project Workbook)** in consultation with the CLEC. Due date should be scheduled after the DLRD for the facility.
- RG 29 form establishes E911 service (switches route E911 messages to the specific circuits going to the E911 selective router/PSAP). The U S WEST account team member will provide CLEC a copy of the Master Street Address Guide (MSAG) and Public Safety Answering Point (PSAP) contact information. This information is initially provided by either U S WEST or a third party (e.g. SCC) and is updated on a quarterly basis (or more often if necessary).
 - CLEC documentation for E911 service can be found in the Interconnect and Resale Resource Guide at URL http://www.uswest.com/carrier/guides/interconnect/html/911_4-W..html
 - U S WEST employees documentation for wholesale E911 is in the **Wholesale Interconnection Operations Guide at Tab 19**.

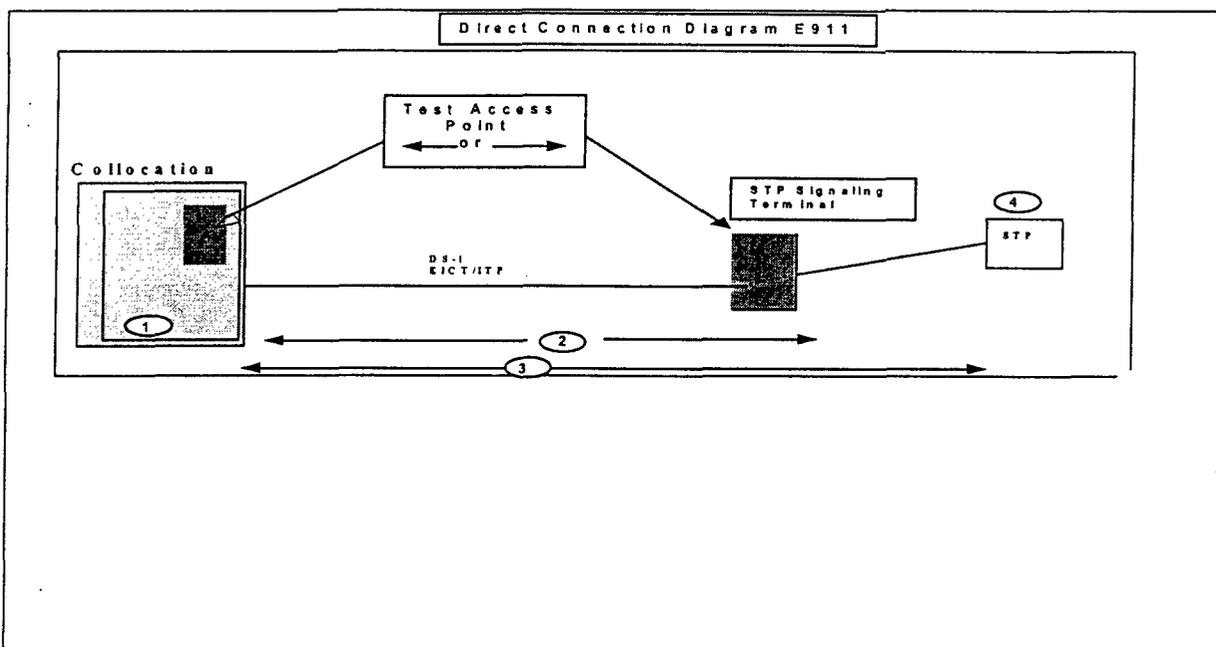
- 4b. U S WEST enters Connecting Facility Assignment (CFA) data from the Transport Request **FOC** onto the CFA Information block on page 8 of the **RG29-0029** form, which is shown below:

CFA Information (CLEC or Wireless carriers)		
Trk Gp ID _____		
Mem.Trk # _____	Ch# _____	CFA _____
Mem.Trk # _____	Ch# _____	CFA _____
Mem.Trk # _____	Ch# _____	CFA _____
Mem.Trk # _____	Ch# _____	CFA _____

- As explained in the **RG29-0029 Instructions**, the Trunk Group Identification (Trk Gp ID) is the Number Plan Area/Public Safety Answering Point (NPA/PSAP). The CFA field may contain the Circuit Identification Number or the DS1 service order number. Trunk group member and transport system channel number are also entered here.
- 4c. U S WEST and CLEC coordinate order completion and test calling.

DIRECT CONNECTIONS FOR SIGNALING

The four steps are illustrated below for arranging Common Channel Signaling via collocated facilities:



*See Attachment A for example of CLEC Collocation Multi-Floor Configuration

*See Attachment B for descriptions and diagram of Demarcation Options

Process Details for Common Channel Signaling Direct Connections

1. Collocation

- 1a. CLEC fills out the **Collocation Application and Co-Provider CLEC Information Form (Version 6.0)**. Copies of the forms and instructions can be found at URL:

http://www.uswest.com/carrier/guides/interconnect/html/collocation_products_1.html

- CLEC can find documentation for Collocation by accessing URL: <http://www.uswest.com/carrier/guides/interconnect/html/collocation>

- 1b. Assuming CLEC accepts U S WEST's collocation quote, U S WEST provisions collocation order, e.g. facilities, power, lighting, ventilation, synchronization.

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- U S WEST employees may find additional information on Collocation provisioning, including Direct Connection cabling, in the **Wholesale Interconnection Operations Guide at Tab 10.**
- 1c. Terminations are constructed inside the collocation space. Spare terminations must be equal in quantity and service level to the Direct Connections requested. This termination may or may not become the demarcation between networks.

2. Establish Direct Connection Tie Cabling:

- 2a. CLEC fills out **Direct Connection (DC-POT) With Collocation Form (DC050900)**. Copies of the form and instructions can be found at URL: <http://www.uswest.com/carrier/guides/interconnect/html/collocation>
- CLEC documentation for Direct Connection options can be found in the IRRG at URL:
<http://www.uswest.com/carrier/guides/interconnect/html/collocation>
 - Additional CLEC documentation for Direct Connection options are also available in U S WEST **Technical Publication 77386, Chapter 3 (Interconnection Arrangements) and Chapter 16 (Interconnection with Finished Services)**. CLEC electronic review of technical publications is available at URL:
http://www.uswest.com/carrier/bulletins/tech_pub.html
Paper copies of U S WEST Technical Publication 77386 may be ordered from: Faison Office Products Company, Suite 200, 3251 Revere Street, Aurora, CO 80011.
 - It is recommended that a joint planning session be held between the CLEC and U S WEST to determine the most efficient routing and ensure mutual understanding of technical requirements.

- 2b. Assuming CLEC accepts U S WEST's collocation quote, U S WEST plans, designs and installs Direct Connection facilities from CLEC demarcation to the same frame that U S WEST uses to terminate established Common Channel Signaling.
- U S WEST employees should refer to Tab 10 of Wholesale Operations Guide, the Collocation Process Flows, and to the Architectures, Models, and Configurations. The U S WEST Model is **M-INTRCT-TERMS** (Collocation Terminations in Central Offices). The U S WEST Configuration Guide is **C-CTERM_FNSHSVC** (Finished Services for Collocation).
- 2c. CLEC gets updated Alternate Point of Termination (**APOT**) from U S WEST. A copy of the APOT Form is provided as **Attachment C**. The CLEC cable naming key is provided as **Attachment D**.

3. Establish Transport/Signaling on the Direct Connection Tie

Cabling:

- 3a. A Common Channel Signaling Access Capability (CSAC/SS7) initial planning session is required between U S WEST and each CLEC prior to order submission. In the initial planning session the parties will complete a pre-order form, link data sheet and special requirements for certain sections of the Access Service Request (ASR). Requirements for Direct Connection will also be determined during this meeting.
- 3b. ILEC and CLEC switches must be tested to prove compliance and compatibility with industry network standards. Worksheets specifying SS7 tests are available on URL:
<http://www.uswest.com/carrier/guides/interconnect/html/worksheet2-2.html>
- 3c. CLEC submits appropriate CCSAC service requests (ASR Form, BCD Form). The ASR form is provided with this document as **Attachment E**.

- The **ASR** form is found at the end of the Ordering and Billing Forum's **Access Service Request (ASR), Access Service Ordering Guidelines Industry Support Interface, ATIS/OBF-ASR-001**. The ATIS website is located at:
<http://www.atis.org/atis/clc/obf/obfdocs.html>
 - The CCSAC ordering forms are provided at the pre-order meeting. CCSAC ordering forms are also available on URL:
<http://www.uswest.com/carrier/guides/interconnect/html/worksheet2-2.html>
- 3d. The ACTL code for collocation suffix is HG(x) or HJ(x) indicating CCSAC is connected via an Expanded Interconnection Channel Termination (EICT). The EICT provides for the connection at the CLEC's collocation site.
- 3e. THE APOT field of the ASR is populated with the bay panel and jack information when the customer is ordering to a collocation site and they are connecting with a DS1 EICT. If the bay panel and jack information is longer than the allotted space the information is shown in the remarks section.

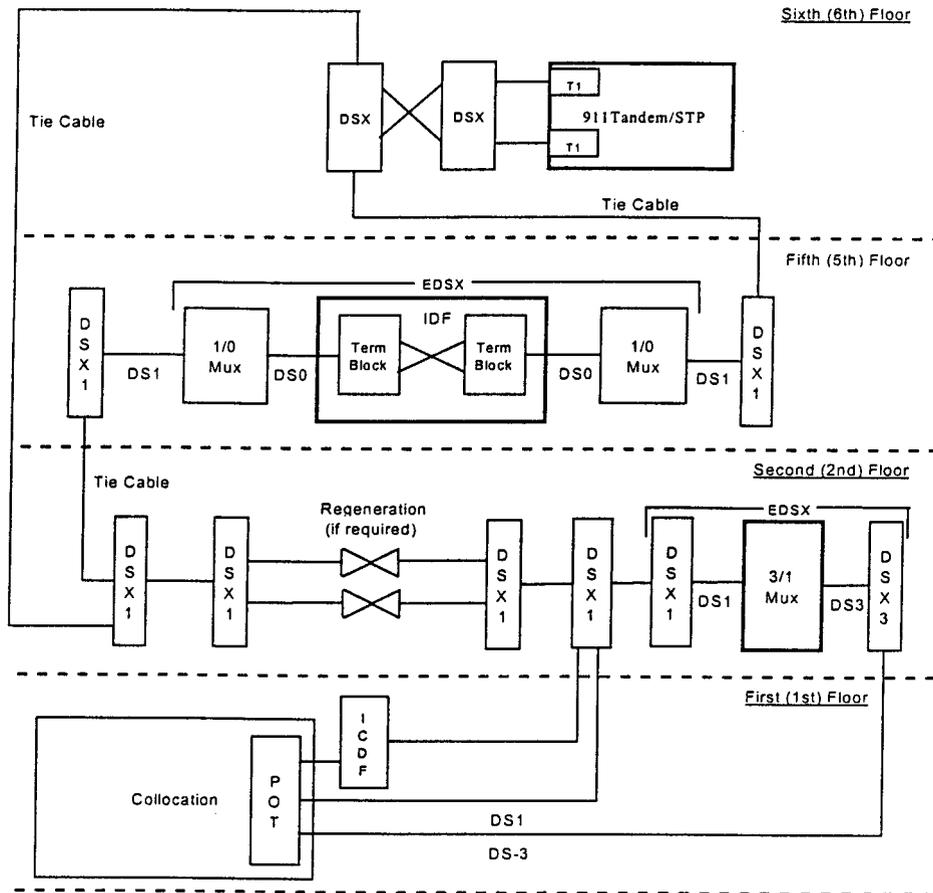
4. Route Signaling onto Link Facility

- 4a. U S WEST in consultation with the CLEC completes the appropriate forms and agrees upon the CCS Link due date intervals. The due date should be scheduled after the DLRD for the facility.
- CCSAC Baseline Service provides the means for transporting signaling information by way of Switched Access Links. This signaling information includes but is not limited to specific information regarding calls being made on associated Feature Group D trunks, Local Interconnection Service (LIS) trunks, Line Information DataBase (LIDB) data, 800 set up information, Call Set Up information and Transient messages. Information regarding signaling products is available on URL:
<http://www.uswest.com/carrier/guides/interconnect/html/CCSA4-C.html>

- U S WEST employees may find additional information on wholesale CCSAC in the **Wholesale Interconnection Operations Guide at Tab 15.**
- 4b. U S WEST and CLEC coordinate order completion and test calling.

ATTACHMENT A - Example of Interconnection in Multi-Story Building

Example of one possible interconnection scenario to 9-1-1 Tandem/STP in a multi-story central office



This diagram is for illustration purposes only and may/may not depict actual configurations.

ATTACHMENT B - DEMARCATION OPTIONS

Demarcation Options

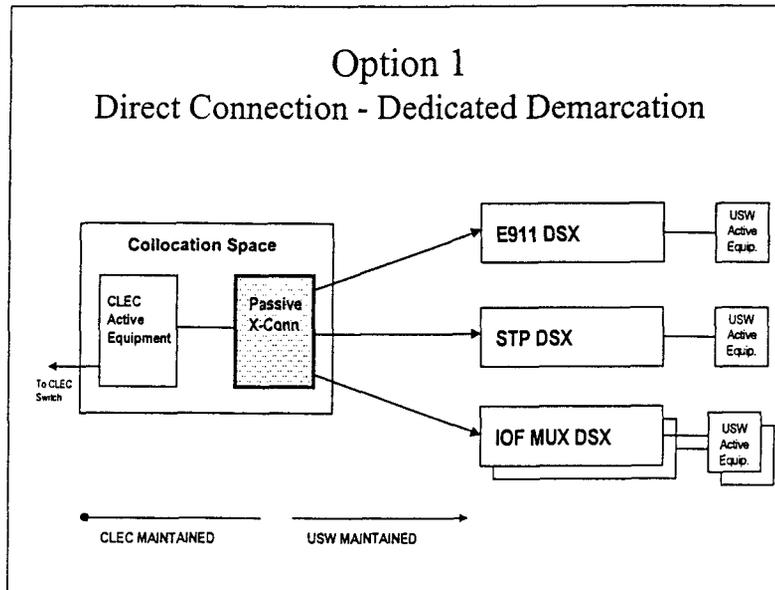
The attached diagrams consider three possible network demarcations. The 47 C.F.R. §51.323 language requires that intermediate frames not be necessarily interposed between the collocated equipment of a CLEC and the interconnected equipment of an ILEC in the same building. The following discussion attempts to evaluate the strengths and weakness of each option.

U S WEST is willing to operate under any of the three options described. The Collocator may choose the option best suited to its needs.

ATTACHMENT B - DEMARCATION OPTIONS

Option 1 – Direct Connection – Dedicated Point of Termination (DC-POT)

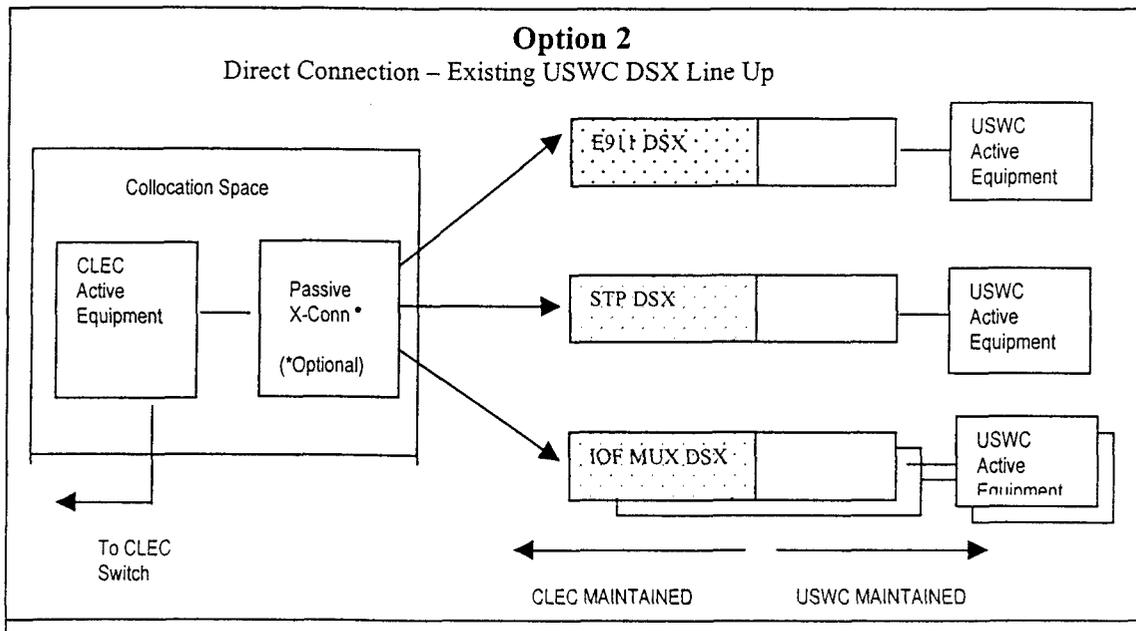
The first option is U S WEST's existing Direct Connection-Point of Termination (DC-POT) offering. This option establishes the demarcation in the collocation space on a passive cross-connect device of some kind. Examples of passive cross-connect devices include terminal blocks, terminal strips, jack panels and DSX frames. As shown with arrows at the bottom of the diagram, a CLEC is responsible for repair and maintenance of the portion of the circuit to the left of the DC-POT. U S WEST is responsible for repair and maintenance of the portion of the circuit to the right of the DC-POT. Each party's technicians have access to the DC-POT 24x7.



ATTACHMENT B - DEMARCATION OPTIONS

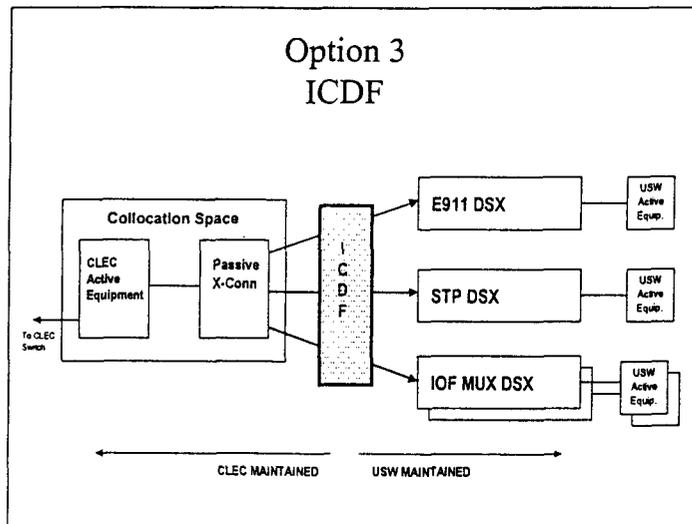
Option 2 – Direct Connection – Existing U S WEST DSX

The second option is similar to U S WEST's existing ICDF offering. Since mid-1999, U S WEST has been using its existing frames as ICDFs. In a building where this is the configuration, no "new" cross-connect serves collocators. In a building where a "new" ICDF configuration has been constructed near the collocated equipment, this option, like the first option, would need to deliberately bypass the "new ICDF". Like the first option, this tie cabling would parallel the existing tie cabling now serving the ICDF. This option establishes the demarcation outside the collocation space on a passive cross-connect device that would need to be accessible to all collocators' technicians and U S WEST technicians. In offices where the ICDF is an existing U S WEST DSX, CLEC technician access to this DSX is the current practice. If a collocator wishes to arrange terminations on a 2-wire POTS level cross-connect device of the modular type, i.e. COSMIC Hardware, standard-engineering principles will apply. As shown with arrows at the bottom of the diagram, a CLEC is responsible for repair and maintenance of the portion of the circuit to the left of the DSX. U S WEST is responsible for repair and maintenance of the portion of the circuit to the right of the DSX. This option potentially establishes the demarcation a long distance away from the collocated equipment. In buildings (multi-story), the demarcation could be on a different floor than the collocated equipment. The cable between the demarcation and the collocator's equipment would either be sold (not leased) by U S WEST to the collocator, or provided by the collocator, owned by the collocator and only racked and terminated at the existing U S WEST DSX by U S WEST. The collocator would rack, terminate and repeater the same cable within the collocation space. U S WEST would provide the measurement of distance to the collocator early in collocation construction processing.



Option 3 – ICDF (Shared Access Configuration if Direct Connection is not requested)

The third option is U S WEST's existing InterConnection Distribution Frame (ICDF)/Interconnection Tie Pair (ITP) offering. This option establishes the demarcation outside the collocation space on a passive cross-connect device that is accessible to all collocators' technicians and U S WEST technicians. As shown with arrows at the bottom of the diagram, a CLEC is responsible for repair and maintenance of the portion of the circuit to the left of ICDF. U S WEST is responsible for repair and maintenance of the portion of the circuit to the right of the ICDF. The cable between the ICDF and the collocator's equipment is either sold (not leased) by U S WEST to the collocator, or as is more frequently the case, provided by the collocator, owned by the collocator and only racked and terminated at the ICDF by U S WEST. The collocator racks and terminates the same cable within the collocation space. U S WEST provides the measurement of distance to the collocator early in collocation construction processing.



ATTACHMENT D - CABLE NAMING CONVENTION

ATTACHMENT D - Cable Naming Conventions

Job Aid - Cable Naming Matrix

Revised: 5-1

CLEC Cables

EXAMPLES:

1. CLEC: XYZ Inc. Collo Type: Physical	CLEC CLLI: MPLSMNDFHG1	Physical
DS3: DSX-3	ICDF	CLEC
DS1: DSX-1	ICDF	CLEC
DS0: MDP	ICDF	CLEC
Fiber: FDP		CLEC
Special: No		
Cable Names:		
PSV01 (DS3)		
PDU01 (DS1)		
PST01 (DS0)		
PDW01 (Fiber)		

2. CLEC: ABC Inc. Collo Type: Virtual	CLEC CLLI: MPLSMNDFWJ6	Virtual
DS3: DSX-3	ICDF	CLEC
DS1: DSX-1	ICDF	CLEC
DS0: MDP	ICDF	CLEC
Fiber: FDP		CLEC
Special: Yes - another CLEC has a CLLI on		
Cable Names:		
VSV06 (DS3)		
VDUF6 (DS1)		
VST06 (DS0)		
VDW06 (Fiber)		

DEDICATED (Bypasses ICDF)

EXAMPLES:

1. CLEC: TTT Inc. Collo Type/Request: Physical (4 DS3's and 28 DS1's)	CLEC CLLI: MPLSMNDFHGA	Physical (4 DS3's and 28 DS1's)	DMARC
Existing Cable Count: NA	NA		
DS3: DSX-3	Repeater	CLEC	
DS1: DSX-1	Repeater	CLEC	
Cable Names/Count:			
FLVGA, 1-4 (DS3)			
DLUGA, 1-28 (DS1)			

2. CLEC: CCC Inc. Collo Type/Request: Virtual (2 DS3's and 14 DS1's)	CLEC CLLI: STCDMNDFHJ8	Virtual (2 DS3's and 14 DS1's)	
Existing Cable Count: NA	NA		
DS3: DSX-3	Repeater	CLEC	
DS1: DSX-1	Repeater	CLEC	
Cable Names/Count:			
FLVJ8, 1-2 (DS3)			
FLUJ8, 1-14 (DS1)			

SHARED (Terminates at ICDF)

Note: Shared ICDF Tie Cables are not CLEC specific, their last two characters should build off of an existing Shared Tie Cable, i.e. the first Shared Tie Cable in the office should end with "01" from a circuit count of 1 through 9,999 before a second "02" cable is created.

EXAMPLE:

1. CLEC: LMN Inc. Collo Type/Request: Physical (2 DS3's and 12 DS1's)	CLEC CLLI: STPLMNDFHG1	Physical (2 DS3's and 12 DS1's)	DMARC
Existing Cable Count: DS3 1-14, DS1 1-56	DS3 1-14, DS1 1-56		
DS3: DSX-3	Repeater	ICDF	CLEC
DS1: DSX-1	Repeater	ICDF	CLEC
Cable Names/Counts:			
FLZ01, 15-16 (DS3)			
FLY01, 57-68 (DS1)			
USW Ties			
PSVF1, 1-2 (DS3)			
PSUF1, 1-12 (DS1)			

ICDF Collocation Tie Cables (USW Provided)

Note: ICDF Collocation Tie Cables are CLEC specific.

EXAMPLE:

1. CLEC: ABC Inc. Collo Type/Request: ICDF Collocation	CLEC CLLI: STPLMNDFHG6	ICDF Collocation
Requested Circuits: 3 DS3's and 100 DS0's (times 2 legs)	3 DS3's and 100 DS0's (times 2 legs)	
DS3: DSX-3	ICDF	CLEC
DS0: TMDF	ICDF	CLEC
USW Ties		
Cable Names/Counts:		
ILZG6, 1-4 (DS3)		
ILXG6, 1-200 (DS0)		

Updated on: 07/05/00
Created and updated by US West Collocation Product Management

ATTACHMENT F -TRANSPORT FORM

(Insert Your Company Logo)		Transport Request										V21 (09-99)	
Administrative Section		CCNA	PON	VER ASR NO									
Circuit Detail		NC	NCI	TLV	S25	EXEMPT REASON	TRF	MST	GETO	GBTN	HVP		
NSIM	SR	SECNCI	SI	SPOT	SECTLV	CKLT	NSL						
CFA							DIR CPT	CFAU	SSS				
ATN	SCFA									SDIR MUXLOC			
HBAN	WACD1												
WACD2							PRI ADM	SEC ADM					
CLK	NVC	PSPEED	LMP	N/U	ZLG	BSC	ETET						
CCEA													
Location Section													
SECLC					ISDN SEQ	SMJK	STREET					BLDG	
FLOOR	ROOM	CITY						STATE					
SCCEA													
ALOC													
				OTC	WKTEL	ACTEL	AACTEL						
ACPGN	ACPPN	GCON							GTEL				
LCON	ACC												
REN	JK CODE	PCA	JK NUM	JK POS	JS	CTX TEL	CTX LSTD NM						
REMARKS													
This Form may not be reproduced, distributed, or used without the express written permission of the Alliance for Telecommunications Industry Solutions. Permission may be obtained by contacting Mike Nichols, O&P Manager, one ATIS 1200 G Street NW, Suite 500, Washington, DC 20005 Telephone number: 202-434-8822; e-mail: msnichol@atis.org													

Updated on: 07/05/00
 Created and updated by US West Collocation Product Management

ATTACHMENT G - FIRM ORDER CONFIRMATION

```
USWCScreenQueueTemp.txt
```

```

/ FOR: ICCNF                *ICSC CONFIRMATION*                05/05/00
08:29
COMMAND                      REQUEST REFNUM
ASR 9921500698 OWNER CMCHK ORD C99215698                JEP 239 STATUS C RET
REQTYP SD ACT N CCNA MWV PON N-MPLS-911-T1 SPA RT F INIT BETTY BOSLEY
VER
ECCKT 3401/T1ZF/EAGNMNOSWAA/MPLSMNDT                    FMT LTERM
***** ASR DETAILS AND SERVICE OPTIONS *****
ICSC NW02 CD/TSENT 082799 15:05 APREP GWEN KLUNENBERG TEL 515 241 1218
EMAIL
ECVER 02 PIA PRVNT PROJ CNO
APP 081799 DLRD 082599 CDLRD PTD 091499 DD 091699 EBD
BAN 612 R62-3158 LSO 651452 SC TSP
SECLOC ECSPC
FDLRD FCDLRD FPTD FDD RTI CIWBAN
FNI CFNI ***** SERVICE OPTIONS *****
MBA CAD SCD ASU CFW CWG CND HWL MWI HNTYP QUE SPC
TWC SMDI IEX RCF SSS CDND DID DIDQ
DIDR TNSC
RMKS

ICS0001I FIND COMPLETED
J*

kgraube - EXACT - 05/05/2000 09:29 AM

/ FOR: ICCN2                *ICSC CONFIRMATION*                05/05/00
08:29
COMMAND                      REQUEST REFNUM
ASR 9921500698 OWNER CMCHK ORD C99215698                JEP 239 STATUS C RET
REQTYP SD ACT N CCNA MWV PON N-MPLS-911-T1 SPA INIT BETTY BOSLEY
VER
ECCKT 3401/T1ZF/EAGNMNOSWAA/MPLSMNDT                    FMT LTERM
***** CIRCUIT INFO *****
ECCKT 3401/T1ZF/EAGNMNOSWAA/MPLSMNDT                    NHN REFNUM
0001
FCKT HBAN
CKR NK
CKR1 LEGNUM
ORD C99215698 FORD CRO
LSOSECLOC 612338 TSC TRKQTY DTN ASG
WACD1
WACD2
    
```

COLLOCATION APPLICATION and CO-PROVIDER (CLEC) INFORMATION FORM*

(Web Site Address: http://www.uswest.com/carrier/guides/interconnect/html/collocation_products.html)

*For Direct Connections use separate form "Direct Connection (DC-POT) with Collocation Application Form".

DENOTES A REQUIRED ENTRY FIELD(S) - depending on the fields input, an indicator may appear. Not all required fields may highlight however, e.g. checking the augment field will not trigger the Power Requirements fields (although the augment request may encompass additional power needs). Co-Provider to review/complete all applicable fields for input.



I. GENERAL ORDERING INFORMATION

A. CO-PROVIDER IDENTIFICATION

<input checked="" type="checkbox"/>	1. Co-Provider Name	<input type="text"/>	
	• Direct Connection to be ordered on a supplemental DC-POT with collocation Application Form		
<input checked="" type="checkbox"/>	2. Co-Provider ACNA Code	<input type="text"/>	
<input checked="" type="checkbox"/>	3. Co-Provider Contacts	Emergency Contact (24 x 7 SPOC Basis)	Co-Provider Project Manager
<input checked="" type="checkbox"/>	a. Name	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/>	b. Address		
<input checked="" type="checkbox"/>	1). Street	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/>	2). City	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/>	3). State/Zip Code	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/>	c. Toll Free Tele No	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/>	d. Facsimile Number	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/>	e. Title	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/>	f. e-mail address	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/>	4. Billing Information	Recurring Billing	Non-Recurring (if different than Recurring)
<input checked="" type="checkbox"/>	a. Billing Name	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/>	b. Billing Name ACNA	<input type="text"/>	
<input checked="" type="checkbox"/>	c. Address		
<input checked="" type="checkbox"/>	1). Street	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/>	2). City	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/>	3). State/Zip Code	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/>	d. Toll Free Tele No	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/>	e. Facsimile Number	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/>	f. Title	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/>	g. e-mail address	<input type="text"/>	<input type="text"/>

B. DATE APPLICATION SENT TO U S WEST

C. 48 HOUR CALL

Check if Co-Providers requests a call with U S WEST within 48 hours of receipt of a valid application.

D. CUSTOMER INTERCONNECTION CONTRACT NUMBER

E.

<input type="checkbox"/>	Interstate Tariff
<input type="checkbox"/>	State Tariff
<input type="checkbox"/>	Interconnection Contract
<input type="checkbox"/>	Parallel Process

F.

<input type="checkbox"/>	90 Days
<input type="checkbox"/>	45 Days

G. U S WEST ACCOUNT TEAM REPRESENTATIVE

1. Name	<input type="text"/>
2. Telephone Number	<input type="text"/>
3. e-mail address	<input type="text"/>

H.

<input type="checkbox"/>

- Initial Presence
- Augment (after 50% down payment sent to U S WEST (USW) on prior, unrelated order)
- Change (prior to 50% down payment sent to USW on related order)
- Cancellation of pending job
- Virtual to Cageless Conversion
- Decommission

1. An augment or change request submitted to USW during the feasibility, quote, or construct phases of the collocation job may impact the Ready for Service (RFS) date.
2. A Change Order submission will require a revised quote from U S WEST. An Augment Order may require a QPF if contractually applicable. Please complete all applicable pages of this application when requesting an augment or change.
3. An augment is requested and performed on a completed collocation site or a collocation site request that has been accepted by the Co-Provider and for which 50% down payment has been received.
4. An augment or change to a collocation site can be a minor or major addition or reduction of the quantity of element(s) which are part of a collocation site.
5. A change order is any change requested on an active (accepted) collocation order prior to receipt of the 50% down payment. When a change order is accepted, the order clock re-starts.
6. An augment request may require the creation of secondary CLLI Code(s).

I.

- Central Office Name
- Street Address
- City
- State
- If Augment/Change/Decommission, original Job ID (BAN #) from APOT

- 8 Character Central Office CLLI if initial application
- 11 Character CLLI Code if Co-Provider already has presence in office

J.

<input type="checkbox"/>

- Virtual
- Caged Physical
- Cageless Contiguous Physical
- Cageless Non-Contiguous Physical
- ICDF Collocation
- Shared Space Caged Physical
- Adjacent Space

K. REQUESTED COLLOCATION TYPE (initial presence, additional presence, or conversion in an office)

To limit delays in the application process, the Co-Provider can choose an alternative form of collocation. If an alternate choice is made, USW requires the application to reflect all information pertinent to both choices.

Virtual	<input type="checkbox"/>	<input type="checkbox"/>
Caged Physical	<input type="checkbox"/>	<input type="checkbox"/>
Cageless Contiguous Physical	<input type="checkbox"/>	<input type="checkbox"/>
Cageless Non-Contiguous Physical	<input type="checkbox"/>	<input type="checkbox"/>
ICDF Collocation	<input type="checkbox"/>	<input type="checkbox"/>
Shared Space Caged Physical	<input type="checkbox"/>	<input type="checkbox"/>
Adjacent Space	<input type="checkbox"/>	<input type="checkbox"/>
Virtual to Cageless Conversion	<input type="checkbox"/>	<input type="checkbox"/>

Note: adding an additional presence in an office, e.g. added a cageless line-up in an office where a Co-Provider already has a caged presence, will generate the creation of a second 11 character Co-Provider CLLI, additional APOT, etc.

III. COLLOCATION PRODUCT SPECIFICATIONS

A. CIRCUIT DETAIL (input quantities desired)

		UNE's	Finished Services/ Leased Private Lines	Copper DMARC (Administrative)	ICDF Collocation	(future use)	Total Circuits	Minimum Increments (Total Circuits)				
1. Existing Circuit Counts (enter quantity(s))	POTS											1
	POTS											100
	DS0											100
	DS1											28
	DS3											1
	Fiber											12
2. New/Additional Circuit Counts Requested (enter quantity(s))	POTS											1
	POTS											100
	DS0											100
	DS1											28
	DS3											1
	Fiber											12

B. SYNCHRONIZATION REQUIREMENTS

-
-
- T1 (DS1) Capacity (TOTA)
- Composite Clock (TOCA)
- If the response to B.1. above is yes please fill in the number of leads required, e. g. 1 or 2.

C. POWER REQUIREMENTS

- DC Power Requirements
 - General Information
 - Virtual Collocation: power leads will be provided as part of the equipment shelf or bay. No more than 40 amps of power will be provided to each relay rack.
 - Caged/Cageless Collocation: -48V DC Battery and Battery Return are provided. Power feed supply is defined as a primary power cable or group of cables designated as "A", and another redundant power cable or group of cables designated as "B" and the associated power cable returns. 1 Feed = A & B (4 wires).
 - U S WEST will fuse at an appropriate level above the requested amount. Breaker/fuse size to be determined solely by U S WEST.
 - Power Request
 - Does the Co-Provider require new or a change in existing DC Power leads (check if yes)?
 - If yes checked above, fill in the number of amps/feeds requested

Amps Required per Feeder	Amperage (write in value)		Number of Requested Feeds		
	Existing (if appl)	New/ Additional	Total Required		
20 amps			<input type="text"/>	<input type="text"/>	<input type="text"/>
30 amps			<input type="text"/>	<input type="text"/>	<input type="text"/>
40 amps			<input type="text"/>	<input type="text"/>	<input type="text"/>
>40 amps (write in value)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
 - If leads of 41 amps or more was entered above, please provide the following information.

Forecasted Heat Dissipation (enters values in Watts)	Initial	3 Months	6 Months	1 Year	Ultimate
	<input type="text"/>				
- AC Power Requirements
 - General Information: U S WEST provides a 120v AC circuit with 3 convenience outlets, per local building code, with Non-Essential power (Non-Essential Power is not backed up by the Engine-Alternator; Essential is). Additional charges will apply for these additional feeds, and will be based on full-time use.
 - Note: Standard design parameters call for the placement of a shared AC outlet at every third bay in a U S WEST line-up, including those containing Co-Provider bays and equipment.
 - Does the Co-Provider require additional AC Power leads (check if yes)?
 - If yes checked above, fill in the following
 -

- Single Phase
- Three Phase
- 2). Ampere size (enter quantity)
- 3). Quantity of AC outlets

D. GROUNDING REQUIREMENTS

A separate grounding bar will be placed in any collocation site that is physically separated from USW line-ups. Sites placed in USW line-ups will be grounded to the line-up stringer, in the same manner as other USW frames in that line-up.

- Does the CLEC equipment use frame return (power circuit completed by using the relay rack iron work)?
- Note: This is not the preferred method and is prohibited for Virtual Collocation. Most equipment should be powered with paired battery and return leads; however, if the customer uses frame return, U S WEST needs to know in order to properly size the grounding cables.

E. ENTRANCE FACILITIES

1.

- DS1
- DS3
- Fiber

- Copper Entrance Facility (considered a BFR and handled accordingly).
- Microwave
- Unbundled Network Elements
- Other (reviewed on a case-by-case basis, considered a BFR and handled accordingly).

2. Additional Informational Requirements

a. Entrance Fiber Configuration

- 1).
- 2).

Co-Provider will provide fiber entrance to POI (Standard Fiber Cable Entrance Configuration).

Entrance 1
Entrance 2

3). Is Diverse Dual Entrance Requested (if yes also provide info in the Cable Requirement section)

- a). If Diverse Dual Entrance is not available does the Co-Provider require the number of fibers spliced into the available entrance be doubled (check if yes)?
- b). Note: Diverse building entrances are available where USW currently has dual entrances and where spare ducts are available to accommodate the request.
- c). Note: All entrance fibers identified will be spliced by U S WEST.

4). Fiber Connector Type at Co-Provider Site (e.g. FC-PC, ST, D4, etc.)

b. Standard Fiber Cable Entrance Configuration Information

1). Number of Fibers to be spliced per entrance onto U S WEST

Shared Facilities at POI(s) (increments of 12)

ENT 1	ENT 2
<input type="checkbox"/>	<input type="checkbox"/>

2). Co-Provider Fiber Counts and Type at POI(s)

- a). Number of fiber cables placed
- b). Number of fibers in each cable
- c). Diameter of cables (enter dimension in inches)

ENT 1	ENT 2
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

3). General Information

- a). Cable manufacturer
- b). Type of fiber (enter SOCC Code)

4). Loss of Decibels per Kilometer (enter quantity)

F. DECOMMISSIONING DETAILS

1. Type of Decommission (from Section 1)

- Complete
- Partial

2.

- Virtual
- Caged Physical
- Cageless Contiguous Physical
- Cageless Non-Contiguous Physical
- ICDF Collocation
- Shared Space Caged Physical

Adjacent Space

3.
4.

Date all Customer Services will be removed from Co-Provider Equipment
Anticipated date of equipment decommissioning.
Date power feeds to be disconnected.

5. Decommissioning Information:

a. Equipment Location (Virtual and Cageless Physical Collocation only):

Manufacturer/Model Number	Dimensions		Location (bay/panel numbers, if assigned)

b. Grounding:

- 1). Does any of the equipment being removed use a frame return? (check if yes)
- 2). If all the equipment (including frame) is being removed, can all of the grounding be removed? (check if yes)

c. Space:

1).

<input type="checkbox"/>	Caged Area
<input type="checkbox"/>	Cageless Contiguous Line-Up
<input type="checkbox"/>	Cageless Non-Contiguous Line-Up
<input type="checkbox"/>	Virtual Space

2). Space to be decommissioned

a). Caged Area (enter Square Feet)

Current	Decommission	Remaining

Note: if a portion of the caged area is to remain, attach a detailed drawing of the current and requested floor space (foot print).

b). Cageless Line-Up

i). Current	
ii). Decommission	
iii). Remaining	

Relay Rack Number(s)

c). Virtual Space

i). Current	
ii). Decommission	
iii). Remaining	

Relay Rack Number(s)

3). CLEC Site DMARC

- a). Does the decommissioned equipment include a CLEC Site DMARC(s)? (check if yes)
- b). Will the DMARC(s) have to be moved (partial decommissioning)? (check if yes)
- c). If yes, what is the new location(s) of the DMARC(s)?

Service Level

DS1	
DS3	

Relay Rack Number(s)

- d. Power
- 1). Will there be any remaining power requirements (partial decommissioning)? (check if yes)
- 2). If yes checked above, please fill in the remaining power requirements.

Amps Required per Feeder	Amperage (write in value)		Number of Requested Feeds		
	Existing (if appl)	Decommission Amperage			Total Remaining
20 amps					
30 amps					
40 amps					
>40 amps (write in value)	<input type="text"/>	<input type="text"/>			

- e. Circuit Detail
- If partial decommissioning is requested, please provide the following circuit/cable detail:

1). Current detail				
i). Cable Name(s)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
ii). Cable Range	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2). Remaining detail				
i). Cable Name(s)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
ii). Cable Range	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

6. Disclaimer
- USW is not liable for equipment removed from service. Furthermore, unless other arrangements are made, equipment left in the collocation site will become the property of USW. The CLEC will then be charged for the disposal of this equipment if it remains in the USW facility for more than 12 business days after notification of work completion for Decommissioning. In addition, USW is not responsible for packaging of the customer's equipment. Within 7 business days a customer representative must meet with the SICM at the central office to oversee customer acceptance and packaging of the decommissioned equipment.

7. Personnel List
- List all Access Cards and Employee Cards to be returned to U S West after the completion of the decommissioning and those requiring access after decommissioning (partial physical decommissioning).

a. Return List	Name	Address	
	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>
b. Remaining List	Name	Address	
	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>

G.

<input type="text"/>
<input type="text"/>
<input type="text"/>

IV. SPECIFIC PRODUCT REQUIREMENTS

A. FINISHED SERVICES

-
- EICT (signal may require regeneration)
 ITP (Equal Level - signal is not regenerated by U S WEST)
- Shared Distributing Frame (ICDF) outside of Co-Provider Site
 Co-Provider Site (bay or cageless line-up)
- If Co-Provider Site DMARC location check above, complete the following:
 - Cage
 Cageless Line-Up
 - If Cageless Site checked above (complete all applicable)
 - Relay Rack (Bay) DMARC Address(es)
 - Panel Number(s) of DMARC
 - Jack Termination(s) of DMARC
 DMARC Bay Dimensions (height x width x depth)

<input type="text"/>	x	<input type="text"/>	x	<input type="text"/>
----------------------	---	----------------------	---	----------------------
-

<input type="text"/>				
<input type="text"/>				
<input type="text"/>				
<input type="text"/>				

U S West
 Co-Provider

d. If Co-Provider is Providing DMARC panel(s), please identify:

- 1). Manufacturer of Panel
- 2).
- 3).

- DS1 Only
 DS3 Only
 DS1 and DS3 Combination Panel
 Fiber Distribution Panel

- 4). DS1 Only
 DS3 Only
 DS1 and DS3 Combination Panel
 Fiber Distribution Panel

e. Please provide a sketch of the requested DMARC Installation, see instructional box below.

Editable Sample Sketches have been provided for your convenience, please verify you meet the following requirements:

- Microsoft PowerPoint 97 or greater.
- Understanding and the ability to use picture editing functions of Microsoft PowerPoint
- Live connection to the Internet to download the sample sketches

To Download the Sample Sketches - please go to the following web address
<http://www.uswest.com/carrier/guides/interconnect/htm1/downloads/FDMARCsk.ppt>

To Download editing instructions for Sketches - please go to the following web address
<http://www.uswest.com/carrier/guides/interconnect/htm1/sketches.htm1>

5. Note: Standard BNC connectors are to be used for all Co-Provider DS3 terminations when the DMARC is in the Co-Provider's site.

B. SPLITTER COLLOCATION

1. Desired Location of Splitter(s) (check first/second choice)

- a. CLEC/DLEC Site (rack/frame mounted)
 b. Central Office Bay (rack mounted)
 c. Central Office Frame (frame mounted)

<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

2. Splitter Choice(s)

- a. Will the Co-Provider order and deliver the Splitter(s), as well as the associated cabling for installation by U S WEST?
 Yes (DLEC Site splitter installation by U S WEST restricted to virtual collocation)
- b. Does the Co-Provider want U S WEST to order the Splitter on the Co-Provider's behalf?
 Yes (DLEC Site splitter installation by U S WEST restricted to virtual collocation)
- c. Splitter detail and quantities requested (fill in one or more)

	Manufacturer					Splitter Type
1st Choice	<input type="text"/>					
2nd Choice	<input type="text"/>					

3. Cable Information

a. Note: The following matrix shows the required cable runs from the ICDF to the DLEC Site by splitter type

	Data	Voice & Data
1). CLEC/DLEC Site Splitter	x	x
2). Central Office Bay Mounted Splitter	x	-
3). Central Office Frame Mounted Splitter	x	-

b.

- c.
- | | |
|----------------------|-------------------------|
| <input type="text"/> | Cable Name |
| <input type="text"/> | Cable Count |
| <input type="text"/> | Cable Type (e.g. 24-NL) |

d. Specify splitter circuit cadence, e.g. skip every 25th pair, skip the last 4 of every 100 count, etc.

e. Do you require additional capacity between your collocation site and ICDF? (check if yes)

f. If additional capacity is required please fill in the following

- 1). Cable size (standard is 100 pair, non-shielded, see note below if non-standard is required).
- 2). Number of pairs required
- 3). Cable type (e.g. 24-NL)
- 4).

g. Will the Co-Provider order and deliver the associated splitter cabling for installation by U S WEST?

- Yes (DLEC Site splitter cable installation by U S WEST).

B. DATE APPLICATION SENT TO U S WEST

C. U S WEST ACCOUNT TEAM REPRESENTATIVE

- 1. Name
- 2. Telephone Number
- 3. e-mail address.

<input type="text"/>
<input type="text"/>
<input type="text"/>

D. TYPE OF ORDER (Check One)

- Initial Direct Connection Order (subsequent to the required Co-Provider pre-provisioning build-out).
- Augment (Initial Direct Connection(s) are already established).
- Change of a pending Direct Connection order.
- Cancellation of pending Direction Connection job.
- Decommission of existing Direct Connection(s).

E. CENTRAL OFFICE LOCATION

<input type="text"/>

- Central Office Name
- Street Address
- City
- State
- 11 Character CLEC Common Language Location Identifier (CLLI)
- If Augment/Change/Decommission, original Job ID (BAN #) from APOT

F. EXISTING COLLOCATION TYPE

- Virtual
- Caged Physical
- Cageless Contiguous Physical
- Cageless Non-Contiguous Physical
- Shared Space Caged Physical
- Adjacent Space

G. CANCELLATION REQUEST INFORMATION (complete if requesting a cancellation of a pending order)

- 1. Reason for Cancellation
- 2. Requested Cancellation Date
- 3. Job ID (BAN #) of job to be cancelled

<input type="text"/>
<input type="text"/>
<input type="text"/>

H. CO-PROVIDER NOTES

<input type="text"/>
<input type="text"/>

III. DIRECT CONNECTION CIRCUIT DETAIL

A. CIRCUIT DETAIL

Direct Connection Circuit Counts
(enter quantity(s))

	Existing DC Counts	New or Additional DC Counts	Total DC Counts	Minimum Increments
DS3				1
DS1				28

B. DEMARCATION DETAIL (U S WEST ASSIGNED)

DMARC location and assignments to be dedicated to Direct Connection

Service Level	Relay Rack	Panel	Jacks	Frame ID
DS3				
DS1				

C. NETWORK TERMINATION DETAIL

1. Service Connection Type (A location)

DS3	
DS1	

2. Network Termination Locations (if known).

Service Level	Relay Rack	Panel	Jacks	Frame ID
DS3				
DS1				

D. SIGNAL LEVEL

1. Does the Co-Provider require special signal levels (check if yes)

2. If yes is checked above indicate the required signal level.

a. EICT (signal may require regeneration)

b. ITP (Equal Level - signal is not regenerated by U S WEST).

DS3	DS1

E. DIRECT CONNECTION TIE CABLE INFORMATION

Augment only, enter the pre-existing DC cable name and cable count(s) to be augmented.

Service Level	Cable Name	Cable Count
DS3		
DS1		

F. CO-PROVIDER NOTES

IV. DECOMMISSIONING DETAILS

A. TYPE OF DECOMMISSIONING

- 1. Complete
- 2. Partial

B. CRITICAL DATES (ENTER MONTH/DAY/YEAR)

- 1. Date all Customer Services will be removed from Direct Connection circuit(s).
- 2. Anticipated date of Direct Connection circuit(s) decommissioning.

C. CIRCUIT DETAIL

Direct Connection Circuit Counts
(enter quantity(s))

	Existing DC Counts	Decommissioned DC Counts	Remaining DC Counts	Minimum Increments
DS3				1
DS1				28

D. DEMARCATION DETAIL (U S WEST ASSIGNED)

DMARC location and assignments to be decommissioned

Service Level	Relay Rack	Panel	Jacks	Frame ID
DS3				
DS1				

E. DIRECT CONNECTION TIE CABLE INFORMATION

Enter the assigned U S WEST tie cable name and cable count(s) to be decommissioned

Service Level	Cable Name	Cable Count
DS3		
DS1		

F. CO-PROVIDER NOTES

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3. Interconnection Arrangements

This chapter describes the Interconnection arrangements available with U S WEST and provides the Certified Local Exchange Carrier (CLEC) with information to aid in selecting the appropriate type of Interconnection in a wire center.

Each arrangement carries different features and levels of responsibility for the CLEC.

The CLEC needs to understand how U S WEST functionally arranges the typical wire center to be able to choose an arrangement and then design their network.

Information in this chapter is generic. U S WEST will provide information about a specific wire center when the CLEC decides to interconnect in the wire center. This information will enable the CLEC to place Interconnector Designated Equipment (IDE), order appropriate cables and frame terminations, and take other preliminary steps in the process of interconnecting and collocating in a U S WEST wire center.

Once the CLEC installs equipment, it can order Unbundled Network Elements (UNEs) or Finished Services.

3.1 Typical Wire Center Arrangement

Figure 3-1 illustrates a typical U S WEST Wire Center. IDE that is owned by two different CLECs is shown. A number of cross-connect frames and equipment are also illustrated.

The figure also lists some of the types of UNEs that may appear on each frame.

There are four basic categories or levels of equipment and cross-connect frames that may be encountered in the wire center. They include DS0 or Voice, DS1, DS3, and fiber or optical levels.

The DS0 or Voice levels are connected to the Common System Main Interconnecting (COSMIC®) Frame, Main Distribution Frame (MDF) or Intermediate Distribution Frame (IDF). The typical wire center will have an IDF(s) and either a COSMIC® or a MDF frame(s).

The DS1 and DS3 levels connect to the DSX-1 and DSX-3 frames respectively.

Fiber or optical connections are made at the Fiber Distribution Panel (FDP) or Fiber Distribution Frame.

The U S WEST UNEs are connected to these cross-connect frames.

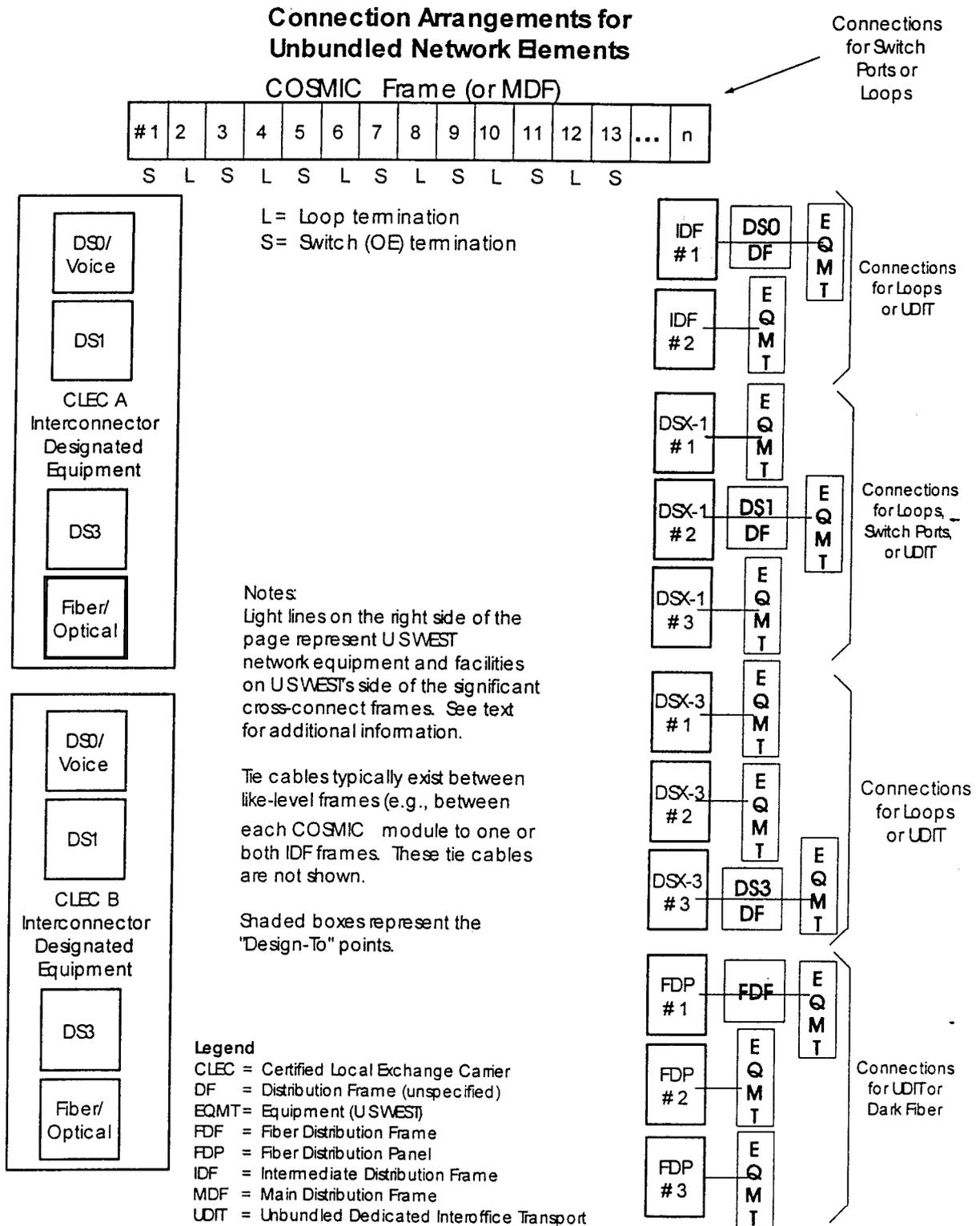


Figure 3-1 Typical Wire Center Arrangement

Other frames may occur in some wire centers. The frame names may also vary. The generic name *IDF*, for example, may appear in several forms including Toll Distributing Frame (TMDF), Trunk Distributing Frame (TMDF), etc. This publication assumes that the illustrated types of frames exist. Any different frames must be similarly treated. Some background information and requirements about the frames may be found in TR-EOP-000161, *Modular Distributing Frame System*, and TR-EOP-000163, *Modular Distributing Frame Framework*. U S WEST may not follow these Technical References all of the time, but they do provide a basic understanding of the situation.

The quantity of each type of frame varies by wire center. The quantities in Figure 3-1 are for illustrative purposes only. The larger wire centers have more of each type of frames. One exception is the COSMIC® frame. Normally, there will only be one COSMIC® frame in a wire center unless space limitations have forced a multiple frame arrangement. However, COSMIC® frames will have different numbers of modules.

The CLEC using collocation must connect their IDE to the appropriate cross-connect frame. A CLEC may also wish to connect two UNEs together, with or without their own IDE included.

The cross-connect frames designated with shaded boxes in Figure 3-1 are called "Design-To" points in this publication. This name comes from the fact that the CLEC must "Design-To" these frames even if they are not the Network Interface (NI) with U S WEST. This approach provides greater flexibility and minimizes costs and design problems. Further information about the "Design-To" point may be found later in this chapter and in Chapter 5.

Figure 3-1 does not show tie cables going between different frames at the same level. At the DS1 level, for example, tie cables normally connect the three illustrated DSX-1 frames together to allow the connection of equipment on one DSX-1 frame to equipment on another DSX-1 frame.

The situation at the DS0/voice level is significantly more complex. The design of the COSMIC® frame requires that any connections to it be spread across the frame to each module. Thus, a tie cable must be placed from one or both of the illustrated IDF frames to each module on the COSMIC® frame. In the situation where such tie cables are placed to only one of the IDF frames, the two IDF frames would have tie cables between them. Thus, connections between the COSMIC® frame and the unconnected IDF are routed via the other IDF. This is discussed in more detail in Section 3.2.2.

3.2 Interconnection Arrangements

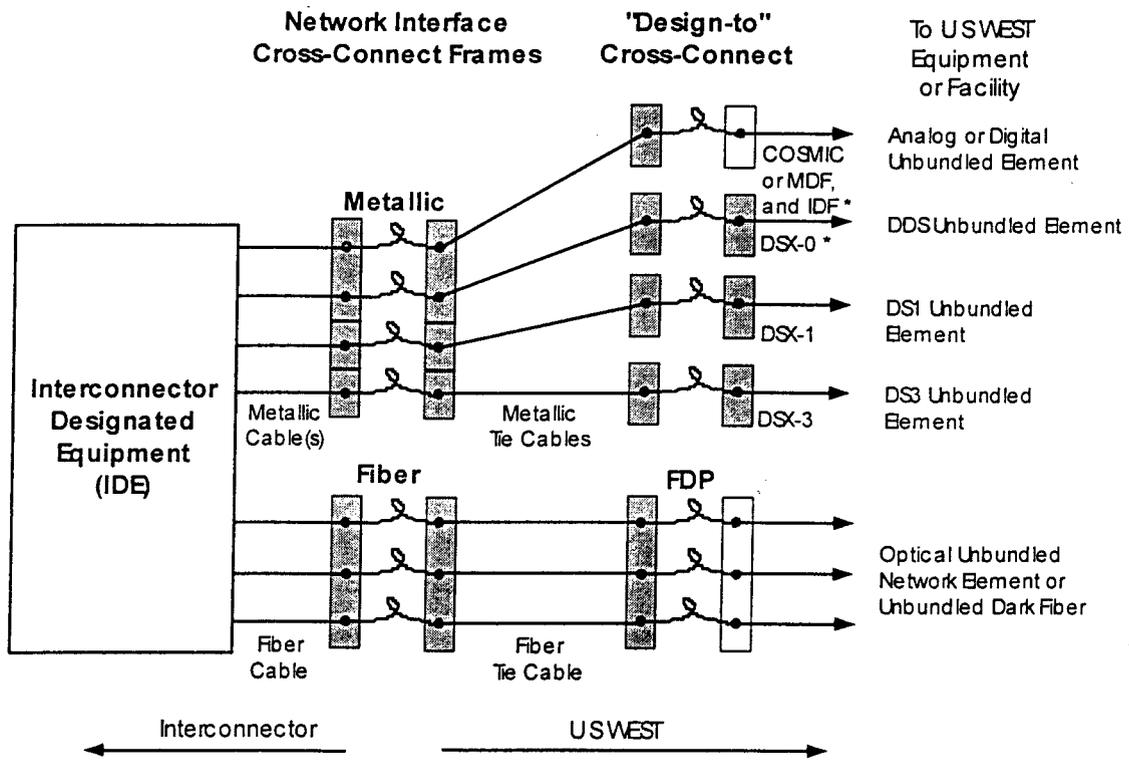
There are some basic requirements for a CLEC to interconnect with U S WEST UNEs at a NI. There are several arrangements available to meet these requirements. Availability depends on space availability, contracts and regulatory orders. The NI is

not the same with these arrangements. The arrangements will also have different processes and responsibilities.

3.2.1 Basic Requirements for Interconnection

Channels on each level (DS0 or Voice, DS1, DS3, and fiber or optical) are segregated from those on other levels. Figure 3-2 illustrates how IDE is connected to UNEs. This figure assumes that the "Design-To" point cross-connect frames and the NIs are two different cross-connect frames. This is not always the case. The Network Interface Cross-Connect Frames are functionally IDFs. The NI frame (or equivalent) may be located either in or outside the collocation space. The frame may be provided by the CLEC if located inside their space. Figure 3-1 also applies. However, there will also be situations where the two frame functions are provided on the same frame. Tie cables will not be required in this situation.

The arrangement will vary from wire center to wire center and may vary over time in a specific wire center. The arrangement will depend on frame space and the availability of floor space for frame growth.



- DDS = Digital Data Service (U.S. WEST)
- FDP = Fiber Distribution Panel (or frame)
- IDF = Intermediate Distribution Frame
- MDF = Main Distribution Frame
- COSMIC = Central Office System Modular InterConnect

* The IDF and DSX-0 may be the same cross-connect and may carry another name.

Figure 3-2 Typical Network Interface Arrangement

The NI cross-connect frame will frequently be used by U S WEST in the provisioning of other services for retail customers if the frame is not located inside the CLEC's collocation space.

The UNEs will be delivered to a NI located at a Point of Termination (POT). The POT will be located either:

- 1) On the Standard (shared) InterConnection Distribution Frame (ICDF) or
- 2) On a DC-POT in the CLEC's collocation area.
- 3) On a DC-POT outside the CLEC's collocation area on a DSX of the CLEC's choosing.

The CLEC must indicate which of the options it wishes when they fill out the Collocation Order Form as described in the Collocation Products and Policies Resource Guide.

3.2.2 DS0 or Voice Level Needs

As previously mentioned, UNEs at the DS0 or Voice level are connected to the COSMIC®, MDF, TMDF or IDF cross-connect frame(s). The connections will be made using cables and/or tie cables depending on the arrangement. Typical UNEs that appear at these "Design-To" cross-connect frames include the Unbundled Analog Line Switch Ports, several types of Unbundled Loops and some Unbundled Dedicated Interoffice Transport (UDIT) applications.

All cable additions to a COSMIC® frame require a Mechanized Engineering Layout for Distributing Frames (MELD) automated termination program computer run. A MELD run provides distributing frame configuration and termination location data to be used to update the database used for mechanized administration of the frames involved. The information includes frame system configurations, frame configurations, and termination records for switch ports, cable pairs and tie pairs.

Tie cables must be placed on modules of the COSMIC® frame based on the MELD run. The COSMIC® frame concept is based on using short jumpers to minimize frame congestion. In optimal circumstances, jumpers should be placed no further than adjacent modules. Modules exist for switch Originating Equipment (OE) and outside plant loop terminations.

CLECs may choose to connect to an IDF frame rather than the COSMIC® frame. This will reduce costs to the CLEC and avoid delays by not having to have a MELD run and then connecting to each module. It then becomes U S WEST's responsibility

to do the MELD run and place any tie cables between the IDF and the COSMIC® frame.

Similar arrangements must be made in wire centers using a MDF in place of a COSMIC® frame. However, the jumper restrictions on an MDF are not nearly as restrictive. MELD runs are not required for MDF or any of the various types of IDF frames including TMDF frames.

Tie cables will also have to be placed to the IDF(s) if any DS0 UDIT, DS1 multiplexer or any other UNEs with circuit conditioning equipment are required. Some Unbundled Loops, for example, may use circuit-conditioning equipment.

A few wire centers may have a separate DSX-0 cross-connect frame for DS0 level digital cross-connects. This normally occurs only with Digital Data Service (DDS) applications. This function is usually included on the IDF rather than a separate DSX-0 frame. However, tie cables will have to be placed to the separate DSX-0 frame if the CLEC needs to connect to UNEs of this type that appear there.

on DS0/voice cross-connect frames, but the terms will be used in this document with other frames to indicate the IDE or UNE termination side.

Jumpers are placed on the frame in order to provide service to the CLEC's customers. **The CLEC must maintain records of these connections.**

Four such connections are illustrated in Figure 3-3. Jumper 3 connects Pair 2 from the IDE to Pair 10 of the tie cable. Similarly, Jumper 2 connects Pair 1 from the IDE to Pair 8 of the tie cable.

Such connections could be used, for example, to tie a CLEC switch to an Unbundled Loop Element to provide a standard Plain Old Telephone Service (POTS) line to the CLEC customer. The connections from the CLEC switch would be transported to the U S WEST wire center on transport facilities (not shown) and terminated on the IDE via an Entrance Facility (not shown). The Unbundled Loop Element (not shown) would be connected to the tie cables on the right side of the figure.

The jumper identified by "1" illustrates another application in which no IDE is involved. For example, if tie pair #1 was connected to a U S WEST Unbundled Switch Port Element and tie pair #3 was connected to an Unbundled Loop Element, placing the jumper would result in the connection of the Unbundled Switch Port Element to the Unbundled Loop Element. This would result in a POTS line to the CLEC customer.

The jumpers identified by "4" illustrate a similar arrangement for CLEC-to-CLEC connections.

Further information about the combination of UNEs may be found in Appendix A.

The Interconnector may either provide the cable from the IDE to the vertical side of the ICDF or order the cable from U S WEST. U S WEST will terminate the cable(s) on the ICDF. The Interconnector is responsible for the inventory of the vertical side while U S WEST is responsible for the inventory of the horizontal side.

3.3.3 DS1 and DS3 ICDFs

Many of the basic concepts for the DS1 and DS3 arrangements are the same as the DS0/voice arrangement.

Typical DS1 or DS3 ICDF lineups will alternate bays for termination of tie cables with bays for termination of collocated IDE cables. Bays or shelves for regenerators (Chapter 15) will be included as required. Figure 3-5 illustrates a one form of a three-bay arrangement. With the illustrated arrangement, the three-bay set would be replicated as required to meet the CLEC's needs. Other arrangements may exist.

The illustration shows an example of a UNE with regeneration. The UNE tie pair appears on pin "n" of the center "horizontal" bay. The regenerator is wired to pins "1" and "2" of the "vertical" bay. U S WEST will place the jumper from pin "n" to pin "1" and will notify the CLEC that the UNE (with regeneration) appears on pin "2" of the vertical bay.

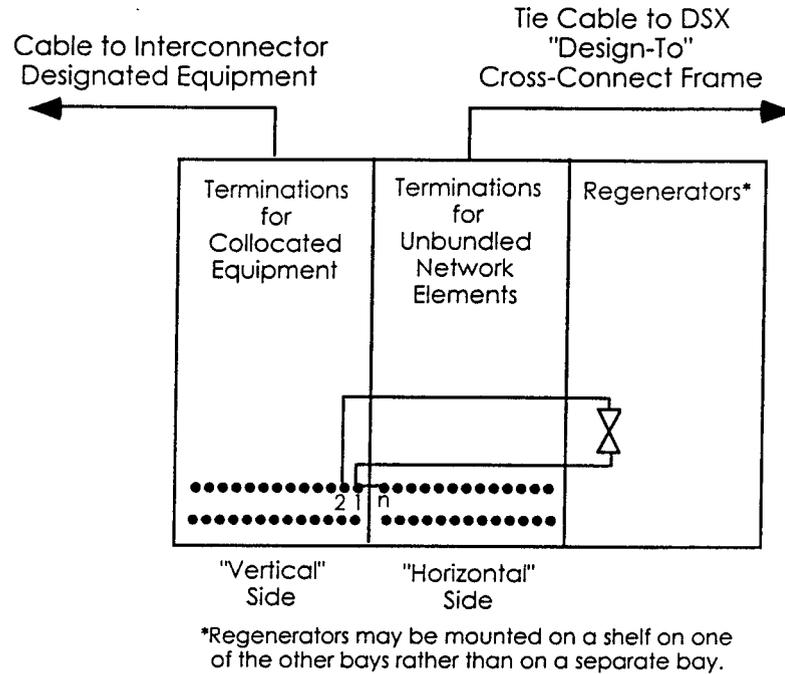


Figure 3-5 Typical DS1 or DS3 ICDF Arrangement

Regenerators may alternatively be located at another location and hardwired to the tie cables going to the ICDF.

In the situation where the ICDF and the "Design-To" frame are the same, the figure would be modified and the regeneration wiring may be slightly different. However, since the ICDF in these arrangements would be a DSX frame, the need for regeneration would be reduced. In any case, The CLEC would be notified the location of the UNE.

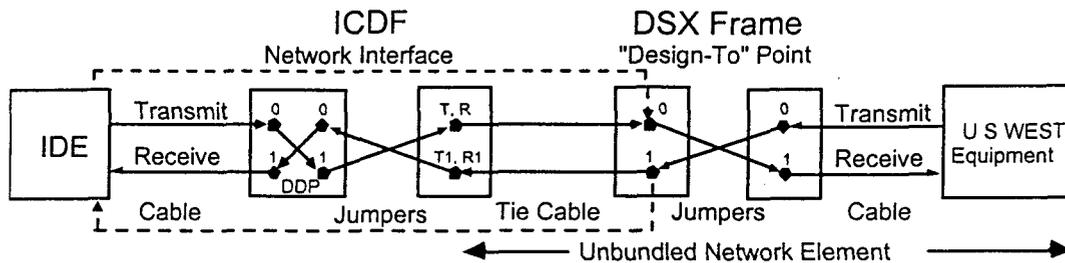
Figure 3-6 is a wiring diagram that illustrates the signal flow from the CLEC IDE connected to a U S WEST-provided UNE. This figure does not include a regenerator. Note the reversals required to connect the Transmit from the U S WEST equipment to the Receive of the IDE.

The Digital Distribution Point (DDP) on the "vertical" frame is a termination shelf providing testing, monitoring, turn up and cross-connect capabilities. This function may be provided by similar equipment with a different name.

In the situation where the ICDF and the "Design-To" frame are the same, the figure would be modified to eliminate the standalone ICDF. The wiring to the IDE would now connect to jacks "0" and "1" on the combined DSX/ICDF. The double reversal on the standalone ICDF with jumpers would be eliminated.

Further information about DS1 and DS3 design criteria may be found in Chapter 15.

DS1/DS3 Signal Flow



Key
 DDP = Digital Distribution Point
 ICDF = InterConnection Distribution Frame
 IDE = Interconnector Designated Equipment
 T = Tip
 R = Ring

Arrows denote signal flow.
 Numbers denote terminations
 Dashed lines denote if ICDF and DSX are same frame

Figure 3-6 DS1/DS3 Signal Flow Between IDE and UNE

3.3.4 Fiber ICDF

Terminations on the Fiber ICDF may be ordered in multiples of twelve fiber terminations. Each panel, with capacity for twelve fiber terminations, may be physically protected to limit access to the CLEC. The cables to IDE and tie cables from U S WEST terminate on the rear of different panels. Jumpers, provided by the CLEC, are used to connect the IDE to the tie cables as illustrated in Figure 3-7.

Further information about interconnection of fiber and optical channels at the Fiber ICDF may be found in Chapter 12.

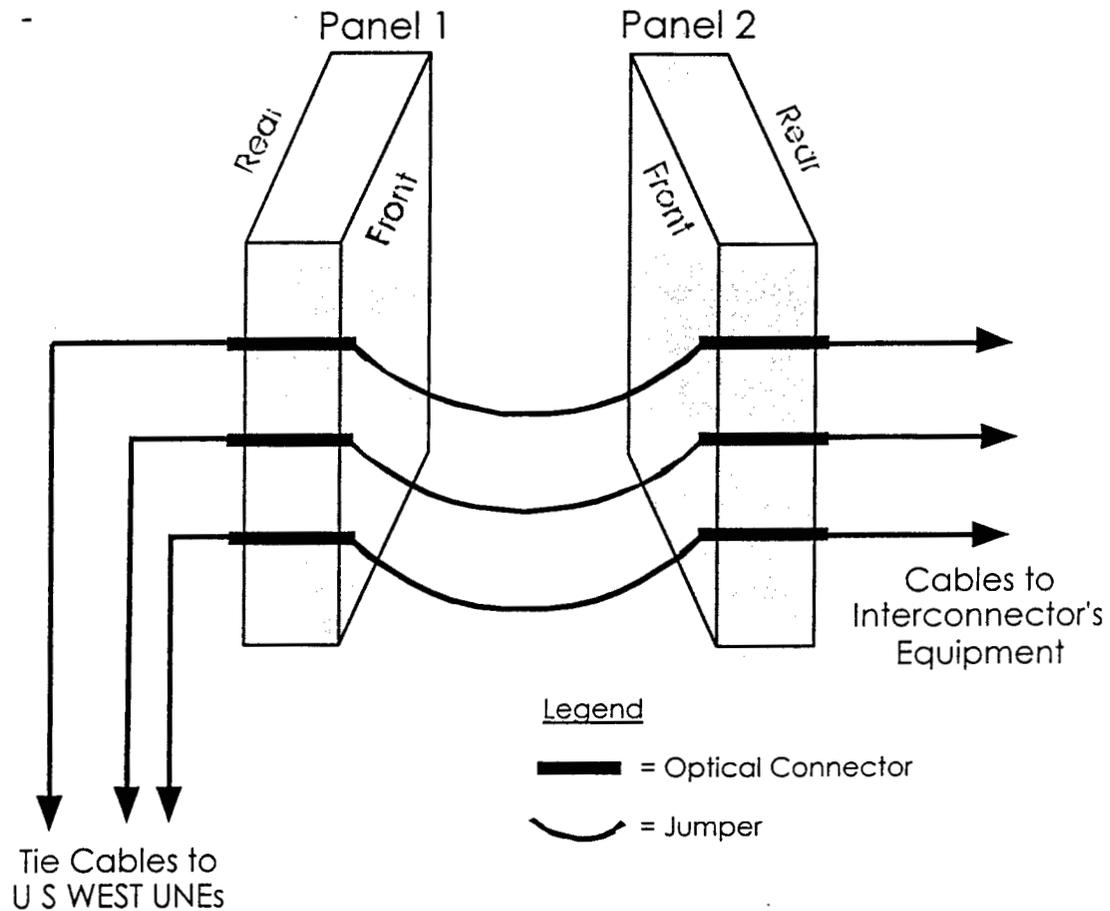


Figure 3-7 Fiber ICDF Arrangement

3.3.5 Usage

As previously mentioned, the ICDF is sectionalized into DS0/Voice, DS1, DS3, and fiber or optical sections. The DS1 and DS3 sections are designed for use in connecting DS1 and DS3 channels respectively. They should be designed to meet the DSX panel at the "Design-To" point with a templated signal. Thus, the channels must not be powered carrier system spans such as a T1-carrier system. The carrier systems should be terminated in office repeaters and only the DS1 or DS3 signal passed on to the appropriate ICDF.

Similar comments apply in wire centers where there is a separate Digital Data Service (DDS) DSX-0 cross-connect panel or frame. In this instance, the signals are limited to the DSX-0 signal generated by a DS0-DP channel unit or the equivalent. Applications using OCU-DP channel units should be routed through the Voice section of the "Design-To" cross-connect and tie cables. However most U S WEST

wire centers will not have separate DSX-0 cross-connect frames and use the same frame for both analog and digital DS0 or voice signals.

The DS0 or Voice section of the ICDF is to be used for DS0 level digital or voice signals. This section may also be used for other acceptable signals above the DS0 level as long as there are no interference or safety problems. The tie cables are standard unshielded cables. The restriction against powered T1-Carrier spans applies here also. This is because the pairs are not shielded, binder group separation is not assured, and the high voltages present safety hazards on the frame.

Certain systems such as the digital subscriber loop technologies (e.g., High-bit-rate Digital Subscriber Line or HDSL) may be placed in the DS0/Voice section. However, these must be identified to U S WEST so that insulating caps may be placed on the cross-connect pins to protect technicians working on or near the cross-connect frames. Notification should be done by using appropriate Network Channel and Network Channel Interface codes.

3.4 Network Interface Options

There are three possible locations for an NI between the collocated IDE and the "Design-To" cross-connect frames. The collocator should choose the NI location. The availability of NIs in a wire center will depend upon space availability, contract and regulatory order.

NI alternatives differ especially concerning the tie cables between the IDE and the various "Design-To" cross-connect frames.

These NI alternatives are:

1. A standard (shared) ICDF
2. A cross-connect frame or block dedicated to a single CLEC for the purpose of a direct connection between the CLEC's space and the "Design-To" frames.
 - a. on the collocator's floorspace
 - b. on an existing cross-connect that terminates similar U S WEST retail services

3.4.1 Standard ICDF Arrangement

The standard ICDF Arrangement has a single set of ICDFs shared by multiple CLECs in the wire center. The standard ICDF, also known as a Common or Shared ICDF, will be referred to as an ICDF in this document. The ICDFs may also be used by U S WEST to provision services for other customers. Separate ICDFs are provided for the four digital signal levels if needed in a specific wire center. The ICDF for the specific level is identified when a CLEC first requests the need for terminations at that level. Additions are placed as required. The actual ordering process is beyond the scope of this publication. The ICDF will have to be identified

(if not already identified) and ICDF terminations will have to be ordered and installed before any UNEs may be ordered.

A typical wire center using the standard ICDF arrangement is illustrated in Figure 3-8. This figure is a variation of Figure 3-1. The shaded boxes represent the ICDFs.

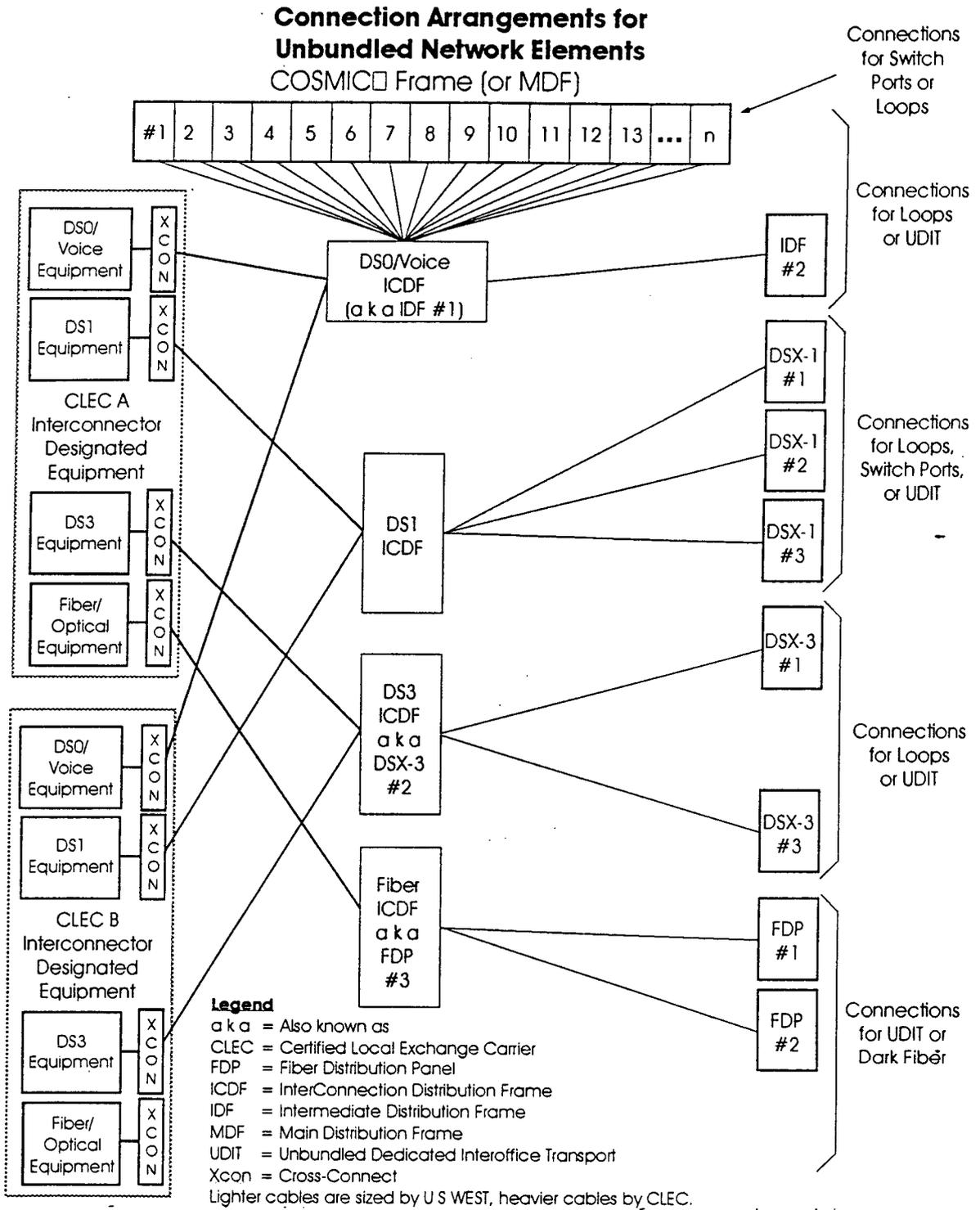


Figure 3-8 Typical Standard ICDF Arrangement

The #1 IDF frame has been designated as the DS0/Voice ICDF. The IDF could also be known as a TMDF in this wire center. Since the CLEC does not cable directly to the COSMIC® frame, the CLEC does not have to worry about MELD runs, etc. as discussed in Section 3.3.2.

At the DS1 level, an old Single Point of Termination frame was designated as the ICDF. The three DSX-1 frames serve as "Design-To" points. (U S WEST is no longer installing Single Point of Termination frames.)

The #2 DSX-3 was designated as the DS3 ICDF. This frame is both ICDF and "Design-To" Point.

The FDP #3 was designated as the Fiber ICDF.

The arrangements in other wire centers could be different.

The CLEC has the responsibility to size and maintain records for the cables from their IDE to the ICDF (vertical side) at each level as discussed in Section 2.7.

U S WEST places tie cables from each ICDF (horizontal side) to the various "Design-To" cross-connect frames at each level. The CLEC orders terminations on the ICDFs to meet their needs. These terminations are ordered as a part of an order for a UNE. No separate order is required. In this example, CLEC B has determined that they do not need access to fiber or optical UNEs.

U S WEST has the responsibility of sizing the tie cables from the ICDF to each "Design-To" frame. This will be done partly based on the information provided by the CLEC. U S WEST will maintain records of these tie cables. Further information about the tie cables and terminations and related responsibilities may be found in Section 3.5.

3.4.2 Direct Connection - Point of Termination Arrangement

A Direct connection - Point of Termination (DC-POT) is a cross-connect frame, block or panel that serves as a NI or demarcation point. This arrangement is sometimes called a *Direct (Dedicated) Connection*. A typical arrangement is illustrated in Figure 3-9. The shaded boxes are the DC-POT frames.

Since the DC-POT is dedicated to a single CLEC, the CLEC has the added responsibility to determine which "Design-To" frames with which they need to connect. This can be determined in a meeting or on a tour. The CLEC must then size the tie cables to these frames. The CLEC must do this design work and then order the DC-POTs and tie cables from U S WEST. The frames, terminations and tie cables must be in place prior to ordering any UNEs. With the DC-POT, the termination order will not be a part of the UNE order since the tie cables and terminations must be in place prior to ordering UNEs.

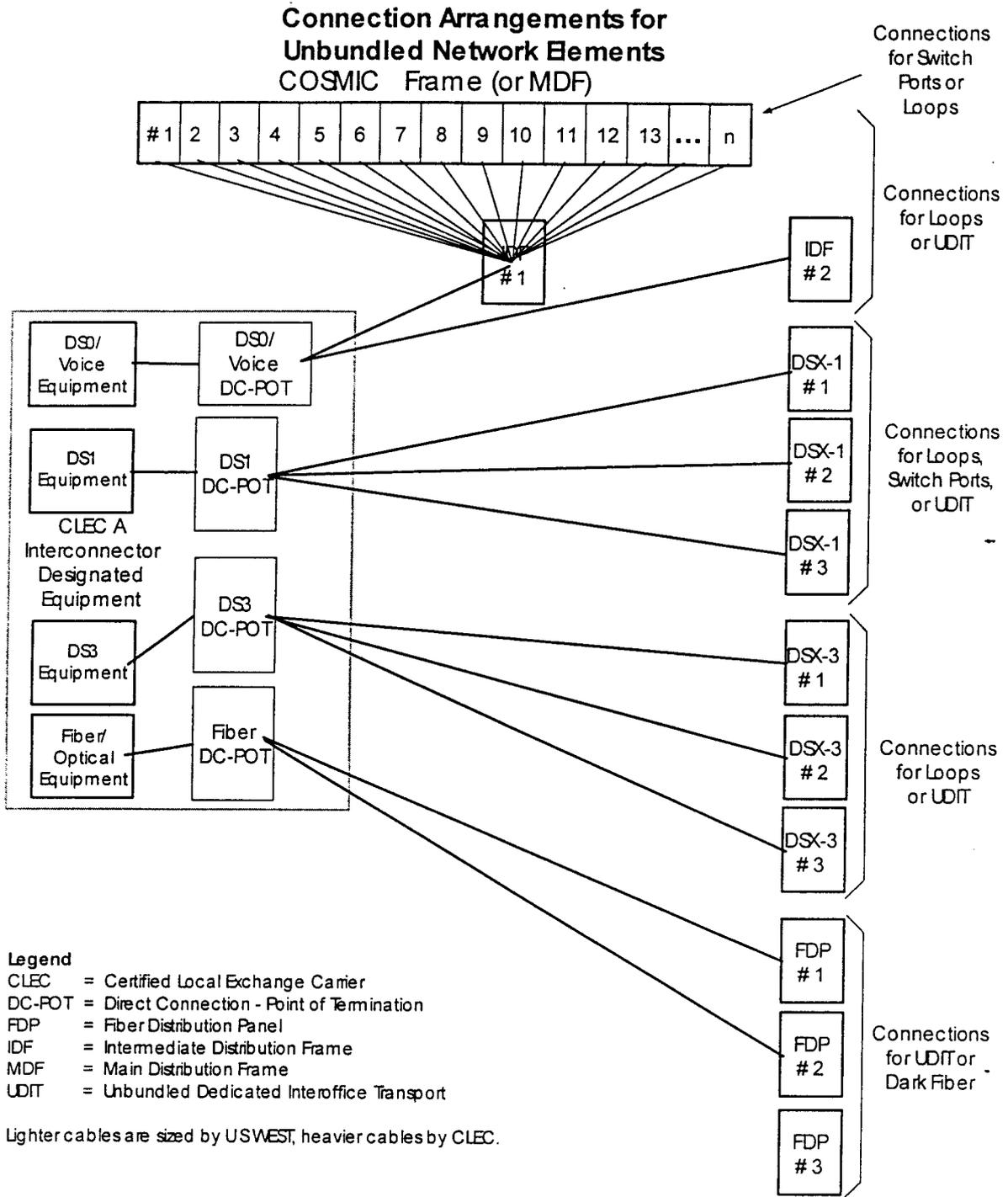


Figure 3-9 Typical Direct Connection - POT Arrangement

“Design-To” frames are the frames to which U S WEST connects their equipment. In the case of Direct Connection, it is guaranteed that there is no intervening cross-connect frame.

In this example, the CLEC has determined that they do not need access to FDP #3. Should this change in the future, the CLEC must order the tie cable(s) before any UNEs to that frame may be ordered.

In this example, the CLEC also opted to cable the DS0/voice DC-POT to IDF #1 and avoid the extra cost and delay for a MELD run required when connecting to a COSMIC® frame. Figure 3-10 illustrates the same arrangement with cabling direct to the COSMIC® frame.

Further information about the tie cables, terminations and related responsibilities may be found in Section 3.5.

The DC-POT may be located inside the CLEC’s space. In this arrangement, the added security of locked doors or panels may be omitted. Under this option, the CLEC must provide access to their enclosure to test circuits from the DC-POT if required

The CLEC may opt to provide the DC-POT. The CLEC may also negotiate with U S WEST and order a non-standard DC-POT from U S WEST. Further descriptive information in this chapter about the DC-POT may not apply in either case.

Alternatively, the DC-POT may also be located outside the collocation space on the same frame that terminates similar U S WEST retail services.

When requested, U S WEST will provision the collocation terminations directly to an existing frame, bypassing the ICDF.

The different types of DC-POTs are described as follows:

DS0/Voice Direct Connection - POT

The basic U S WEST-provided DS0/Voice DC-POT is an enclosed single-sided low-profile frame with front access only. The frame is equipped with a two-vertical unit with terminations for 800 pairs for IDE and 800 pairs for tie cables connected to UNEs. U S WEST and the CLEC will both have keys to the doors enclosing the front of the frame. The U S WEST key and door will permit access to the “horizontal” (top) part of the frame only. The CLEC key will give access to the entire frame.

Horizontal DC-POT tie cables are available in 100 pair multiples. Thus, up to eight different “Design-To” frames or COSMIC® modules may be connected to the DC-POT. A Meld run is required in the latter application as discussed in Section 3.2.2.

A CLEC requiring access to more frames or modules will have to order more DC-POTs.

CLECs wishing direct connection (i.e., cabled directly to) the COSMIC® frame are limited to using these cables for 2-wire POTS. Services requiring electronic equipment must be cabled to an IDF.

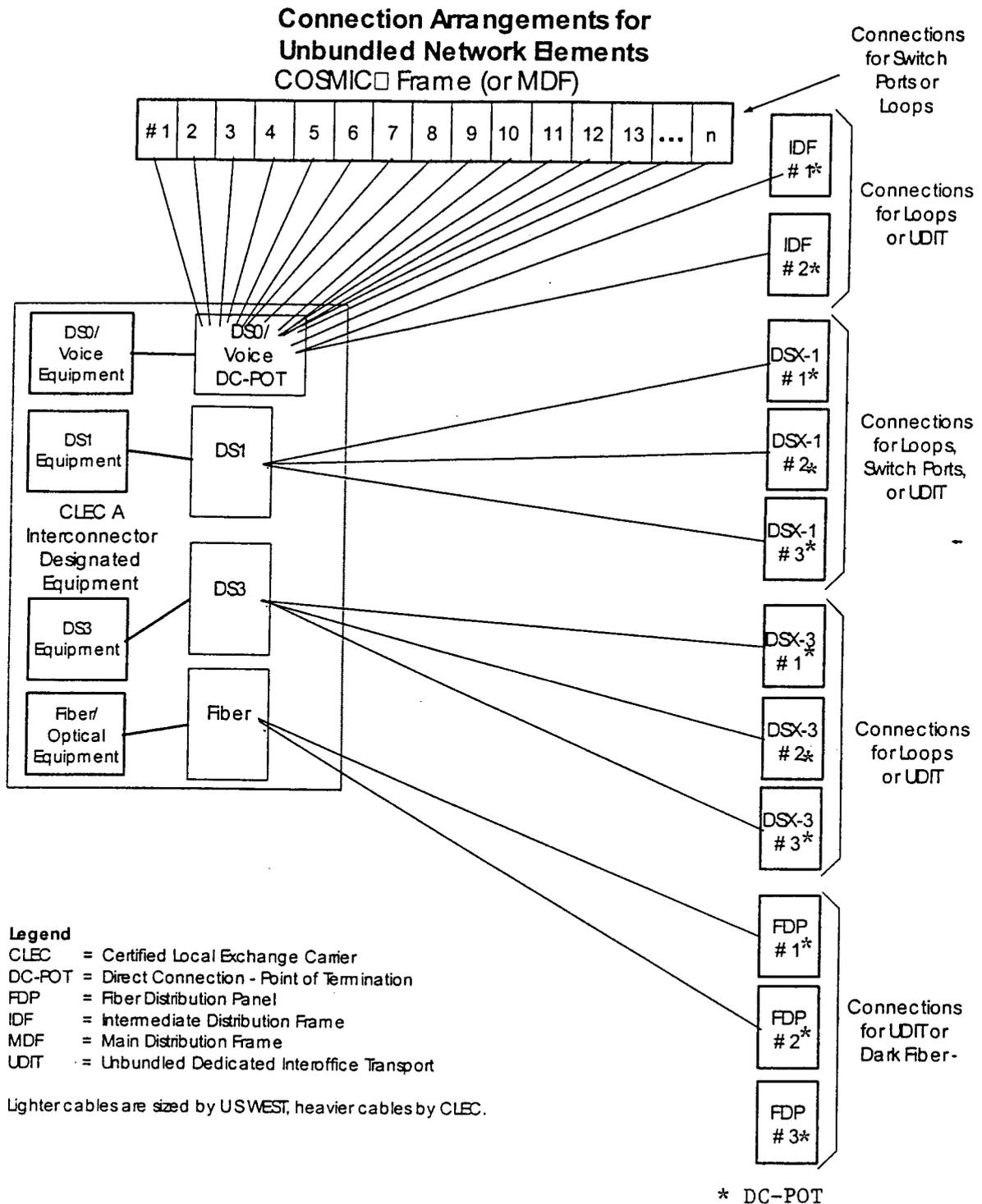


Figure 3-10 Another Direct Connection-POT Arrangement

DS1 Direct Connection - POT

“Horizontal” DC-POT tie pairs for DS1 are available in multiples of two 28-pair shielded cables (transmit and receive) with a capacity of 28 DS1 circuits. Different tie cables may connect to different “Design-To” DSX-1 frames.

A cabinet, lockable panel or other arrangement will be provided to limit access to the cross-connect panels, if requested, for installations outside a cage.

The U S WEST-provided DS1 DC-POT is a composite bay with terminations for 512 DS1 circuits for IDE and 512 DS1 circuits for tie pairs to DS1 UNEs.

DSX-1 and DSX-3 panels may be located on the same physical frame.

DS3 Direct Connection - POT

“Horizontal” DC-POT tie pairs for DS3 are available in multiples of two (2) coaxial cables (transmit and receive) with a capacity of one (1) DS3 circuit. The tie cables may connect to different “Design-To” DSX-3 frames.

A cabinet, lockable panel or other arrangement will be provided to limit access to the cross-connect panels, if requested, for installations outside a cage.

The U S WEST-provided DS3 DC-POT is a composite bay with terminations for 128 DS3 circuits of IDE and 128 DS3 circuits for tie pairs to DS3 UNEs.

DSX-1 and DSX-3 panels may be located on the same physical frame.

Fiber Direct Connection - POT

The Fiber DC-POT has terminations for multiples of 12 fibers. The twelve-fiber termination panel on the U S WEST-provided Fiber DC-POT may be protected with a lock to provide additional security. See Section 3.3.4 for further information.

3.4.3 Combinations of Arrangements

Combinations of arrangements may be permitted. For example, the DC-POT could be used in the collocation space at the DS0/voice level while an ICDF arrangement could be used at the DS1 level and a DC-POT outside collocation space could be used at the DS3 level.

3.5 Tie Cables, Frames and Terminations

3.5.1 General Requirements

Terminations on the ICDF or DC-POT can be ordered in multiples depending on the type of termination and the Interconnection arrangement.

Horizontal terminations are used to connect to UNEs. Vertical terminations are used to connect to IDE.

U S WEST will provide the CLEC with the cross-connect frame arrangement in a specific wire center at the time the CLEC arranges for the collocation of equipment or identifies the need for ICDF terminations.

U S WEST will provide the CLEC the ICDF or DC-POT termination addresses and tie cable identification.

All pairs in cables from IDE and tie cables must be terminated on the ICDFs or DC-POTs. Termination of cable pairs at the IDE end of these cables is at the option of the CLEC.

Tie cables that go to DSX-1 and DSX-3 "Design-To" point cross-connect panels may require regeneration in some larger wire centers to meet the templated signal requirements at the DSX panels. The CLEC must evaluate the need for regenerators using the length and type of tie cables (description provided by U S WEST) and similar information about the cables and equipment on their side of the ICDF or DC-POTs.

Typical maximum lengths are 655 feet for 22-gauge shielded cable for DS1 and 450 feet of 728-type coaxial cable for DS3. Other tie cable types and gauges will be encountered in some wire centers. Further information about cable types and regeneration may be found in Chapter 15.

ANSI T1.102-1994, *Digital Hierarchy - Electrical Interfaces*, may be consulted for further information.

The CLEC may wish to use small tags on jumpers placed on the ICDF to identify ownership and circuit ID. This may help reduce any problems related to the mis-identification of the jumpers. U S WEST does use these small tags on fiber jumpers and some other limited applications with good success in reducing errors.

The CLEC must order terminations on the ICDF or DC-POT as described in the following sections.

The CLEC must order the appropriate frame terminations prior to ordering any UNEs!

U S WEST will supply standard jumper wire for DS0 and DS1 jumpers. However, the CLEC has the option of providing the CLEC's own wires. The CLEC must either provide their own DS3 and fiber jumpers or order them from U S WEST.

3.5.2 ICDF Arrangement

The CLEC must order appropriate ICDF terminations in the wire center to meet their needs. The CLEC must identify the vertical terminations as connected to cable going to IDE (Figure 3-3).

U S WEST will install the terminations on the ICDF and the tie cables between the horizontal side of the ICDF and the "Design-To" frames based on information provided by the CLEC (assuming the two functions are not on the same frame). U S WEST has the responsibility to size the tie cables and determining which "Design-To" frames need to be accessed. U S WEST also has the responsibility to monitor usage on the tie cables and to place additional tie cables in a timely manner. The CLEC has responsibility to notify U S WEST of any changes in their anticipated usage (i.e., a forecast).

The CLEC must size and provide the cables between their IDE and the vertical side of the ICDF. The CLEC may also order these cables from U S WEST when the collocation order is placed. U S WEST will terminate the pairs on the ICDF.

The CLEC must administer and keep records for the IDE to ICDF cables. U S WEST must administer and keep records for the tie cables (if any) between the ICDF and "Design-To" frames.

Terminations for DS0 or voice applications on the vertical side of the DS0/Voice ICDF can be obtained in multiples of 100 pair terminations (100 pairs of tie cables). All cable pairs must be terminated on the ICDF.

U S WEST has responsibility for ordering and implementing the MELD run required for any COSMIC® frames.

ICDF terminations for DS1 applications will be available with capacity for multiples of 28 DS1 systems (two 28-pair shielded tie cables, transmit and receive).

Terminations for DS3 and above can be obtained in multiples of one system. Specifically, the DS3 tie cables would consist of two coaxial cables (transmit and receive) per system.

If DS1 or DS3 regenerators are required, the CLEC must provide or order regenerators to meet their needs.

Fiber terminations and tie cables will be in multiples of two fibers (transmit and receive). Cables to IDE will be in multiples of twelve fibers.

3.5.3 Direct Connection - POT Arrangement; U S WEST Supplied

The CLEC must size and provide the cables between their IDE and the vertical side of the DC-POT. These cables must meet the requirements of the publications listed in Section 1.6. The CLEC may also order the cables from U S WEST. U S WEST will terminate the pairs on the vertical side of the U S WEST-provided DC-POT.

The CLEC will also order DC-POT terminations and tie cables between the horizontal side of the DC-POT and the other cross-connect frames identified as the "Design-To" point (the DC-POT can be the "Designed-To" frame point). This

involves determining which "Design-To" frames they need to access and then sizing the tie cables to these frames.

These tie cables must go directly from the DC-POT to the "Design-To" frames and may not be routed through the standard (shared) ICDF unless requested by the CLEC.

U S WEST will install the DC-POT and terminate the tie cables on the horizontal side of the DC-POT and "Design-To" frames as ordered by the CLEC.

Descriptive information in the following sections may not apply if the CLEC orders a non-standard DC-POT from U S WEST.

DS0/Voice DC-POT

The standard U S WEST-provided DS0/Voice DC-POT has a capacity of 800 "vertical" terminations to connect to IDE and 800 "horizontal" terminations to connect to tie cables for UNEs.

Tie cables from the DS0/Voice ICDF to each IDF or MDF frame or module on a COSMIC® frame can be obtained in multiples of 100 pairs.

U S WEST has responsibility to order the MELD run for any COSMIC® frame additions. The MELD run will be based on the pair requirements ordered by the CLEC.

DS1 DC-POT

DC-POT terminations for DS1 applications will be available with capacity for 512 systems (1024 shielded pairs) each for both "horizontal" and "vertical" sides of the standard U S WEST-provided frame.

The tie pairs to each DSX-1 "Design-To" frame are available with a capacity of 28 DS1 systems (two 28-pair shielded cables, transmit and receive). Cables from DC-POT to IDE are available in the same sizes.

DS3 DC-POT

DC-POT terminations for DS3 applications will be available with capacity for 128 systems (256 coaxial cables) each for both "horizontal" and "vertical" sides of the standard U S WEST-provided frame.

Tie cables to the DSX-3 "Design-To" frames and cables to IDE for DS3 can be obtained in multiples of a one-system capacity. Specifically, these DS3 cables would consist of two coaxial cables (transmit and receive) per system.

DS1 or DS3 Regenerators

If DS1 or DS3 regenerators are required, the CLEC must provide or order regenerators to meet their needs. If the CLEC decides to order regenerators from U S WEST, the CLEC must order the standard type of shelves with a capacity of 24 regenerators when they arrange for the standard U S WEST-provided DC-POT. The individual regenerators may be ordered on an as needed basis as an option for the UNE being ordered.

If the CLEC opts to provide the DC-POT, the CLEC must either provide their own regenerators or make provisions for ordering standard U S WEST regenerators.

Fiber DC-POT

The Fiber ICDF and standard Fiber DC-POT are usually the same type of frame. See Section 3.5.2 for further information.

3.5.4 Direct Connection - POT Arrangement; CLEC Supplied

The CLEC may provide the DC-POT. Under these circumstances, the DC-POT would normally be placed inside the CLEC's enclosure. The CLEC may alternatively lease floor space outside the enclosure (Cageless Physical Collocation).

CLEC-provided DC-POTs may be sized to meet the CLEC's needs. However, tie cable multiples do not change. These tie cables must go directly from the DC-POT to the "Design-To" frames (the DC-POT can be the "Design-To" frame point) and may not be routed through the standard (shared) ICDF unless requested by the CLEC.

Cables between a CLEC-provided DC-POT and their IDE must be provided by the CLEC.

3.6 Combination of UNEs on Different "Design-To" Frames

There are some special issues related to ICDF Collocation. ICDF Collocation involves the CLEC ordering UNEs and then connecting them together without any IDE. Chapter 4 provides further information about ICDF Collocation. Appendix B also discusses the combination of UNEs.

The CLEC may combine UNEs together at the ICDF or DC-POT. Tie cables will connect the "Design-To" frames to the ICDF or DC-POTs.

3.7 Comparison of Interconnection Arrangements

There are two main differences between the standard (shared) ICDF and the DC-POT arrangements.

First, the DC-POT arrangement provides improved security for the CLEC in that the frames are dedicated for their use and may be in lockable enclosures. Access to the standard ICDF arrangement is not restricted.

The second main difference is that for the DC-POT arrangement, the CLEC takes the added responsibility of identifying and sizing all tie cables required. This function must be done from the DC-POT directly to the various "Design-To" cross-connect frames and for the DC-POT to IDE cables.

U S WEST will provide the CLEC with information as to the type and identification of the "Design-To" cross-connect frames in a specific wire center. These typically include COSMIC® and/or MDF, IDF, DSX-1, DSX-3, FDP and sometimes other types of frames.

Table 3-1 summarizes the arrangements.

Since the tie cables will be dedicated to the CLEC, the minimum quantities have changed for DS1 and above frames to fill out a panel on the DC-POT.

Table 3-1 Comparison of ICDF and Direct Connection - POT Arrangements

Item or Responsibility		Standard ICDF	Direct Connection - POT
Orders frame terminations		CLEC	CLEC
Responsible for sizing and ordering tie or NI cables to all necessary "Design-To" cross-connect frames		U S WEST ** (Tie Cables)	CLEC (Tie cables)
Installs tie cables		U S WEST	U S WEST
Basic size for cables (or multiples of)	DS0/Voice	100 pairs	100 pairs
	DS1	28 circuits (56 pr)	28 circuits (56 pairs)
	DS3	1 circuit (2 coax cables)	1 circuit (2 coax cables)
	Fiber	12 fibers	12 fibers
Terminations on ICDF, or DC-POT	DS0/Voice	100 pair multiples vertical, 1 pair multiple horizontal	800 pairs each side *
	DS1	28 circuits (56 pairs) vertical, 1 circuit (2 pairs) horizontal	512 circuits (1024 pairs) each side *
	DS3	1 circuit (2 coax cables)	128 circuits (256 coax cables) each side *
	Fiber	12 fibers	12 fibers *
Size and "Design-To" termination point of tie (ICDF/DC-POT) or IDE (No ICDF) cables.	DS0/Voice	U S WEST determines size and "Design-To" termination point, CLEC not impacted.	100 pair multiples per COSMIC® module and/or 100 pair multiples per MDF or IDF. CLEC determines termination point.
	DS1		28 DS1 circuit (56 pair) multiples per DSX-1 lineup. CLEC determines termination point.
	DS3		1 DS3 circuit (2 Coaxial cables) multiples per DSX-3 lineup. CLEC determines termination point.
	Fiber		2 fiber multiples. CLEC determines termination point.
DS1 and DS3 regenerators		Ordered as needed.	Shelf in multiples of 24, * regenerators ordered as needed.
Lockable enclosure for ICDF		No	Yes (No if inside an enclosure) *
CLEC Responsibility		Lowest	Middle
CLEC Flexibility		Highest	Middle

* May not apply to non-standard DC-POT or if DC-POT is provided by the CLEC.

** See Section 4.6 for special considerations with ICDF Collocation.

U S WEST will place the cable(s) provided by the CLECs for the direct cable option. Any such cable must meet appropriate fire and safety standards including, but not limited to, the Network Equipment - Building Systems (NEBS) (FR-2063), National Electric Code (NEC), Occupational Safety and Health Administration (OSHA) and various federal, state and local regulations.

As an alternative to having U S WEST place the cable(s), the CLEC may use a U S WEST-approved installation vendor to place the cable in the identified route. U S WEST must terminate any cable at a Virtual Collocation site.

New cable racks may be shared with others or dedicated for the CLEC's sole use. If the cable rack is dedicated, it must be labeled with the CLEC's name.

3.9 Direct Connection Between Entrance Facilities and UNEs

There may be situations when a CLEC desires to directly connect their entrance facility to UNEs. This arrangement is available only when permitted by tariff, contract or regulatory order.

This arrangement is more likely to occur when using a Metallic Pair Entrance Facility (Section 2.7.3), but may occur with other types of entrance facility. In these situations, there is no need for any collocated IDE.

Microwave Entrance Facilities (Section 2.7.5) and using a Finished Service instead of an entrance facility (Section 2.7.6) are excluded from this situation.

The entrance facilities requirements are discussed in Chapter 2.

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16. Interconnection with Finished Services

16.1 General

Certified Local Exchange Carriers (CLECs) may order Finished Services from U S WEST. These services may be delivered to their collocation area in the U S WEST wire center. These Finished Services are ordered from the appropriate tariff, catalog, or contract and are described in the appropriate technical publication(s) identified in the tariff or catalog.

There are some special issues relating to Collocation ordered from Federal Communications Commission (FCC) Tariff #5, Section 21 and most state tariffs. These special issues have the greatest impact on DS1 and DS3 Finished Services or services that have DS1 or DS3 Network Interfaces (NIs). These special issues are described in Sections 16.5 and 16.6.

Material in this chapter supplements the technical publications for the specific Finished Services.

The CLEC must have some form of Physical or Virtual Collocation in the wire center to have a Finished Service delivered to them within the wire center. That is, the CLEC must have equipment collocated in the wire center. The Physical or Virtual Collocation space may take any form described in Chapter 4.

The Interconnector Designated Equipment (IDE) may be complex and varied as described in Chapter 2. Alternatively, the IDE may be much simpler if the CLEC intends to only connect Finished Services to Unbundled Network Elements (UNEs) or other Finished Services via their equipment. In the latter situation, the IDE may consist of any terminating equipment required by the Finished Service plus cables, regeneration equipment and cross-connects to connect the service to a UNE or to another Finished Service via the IDE.

The Finished Service will be delivered to a NI located at a Point of Termination (POT). The POT will be located either:

- 1) On the Standard (shared) InterConnection Distribution Frame (ICDF) or
- 2) On a DC-POT in the CLEC's collocation area.
- 3) On a DC-POT outside the CLEC's collocation area on a DSX of the CLEC's choosing.

The CLEC must indicate which of the options they wish when they fill out the Collocation Order Forms.

16.2 Wire Center Arrangement

Figure 16-1 illustrates a typical arrangement. This illustration shows several items described in Chapters 2 through 4. Included are:

- A Fiber Entrance Facility

- Some IDE

- Metallic cables to a DS0/Voice, DS1 or DS3 ICDFs
- Fiber cables to a fiber ICDF
- The POT for the termination of Finished Services

The POT may or may not be in the collocation area. A collocator chooses the POT location as part of its collocation pre-provisioning. Not all of these elements will apply in every installation. Finished Services may or may not traverse the ICDF. Chapter 3 of this publication describes Direct Connection. This tie cabling option deliberately bypasses the ICDF for both Finished Services and UNEs.

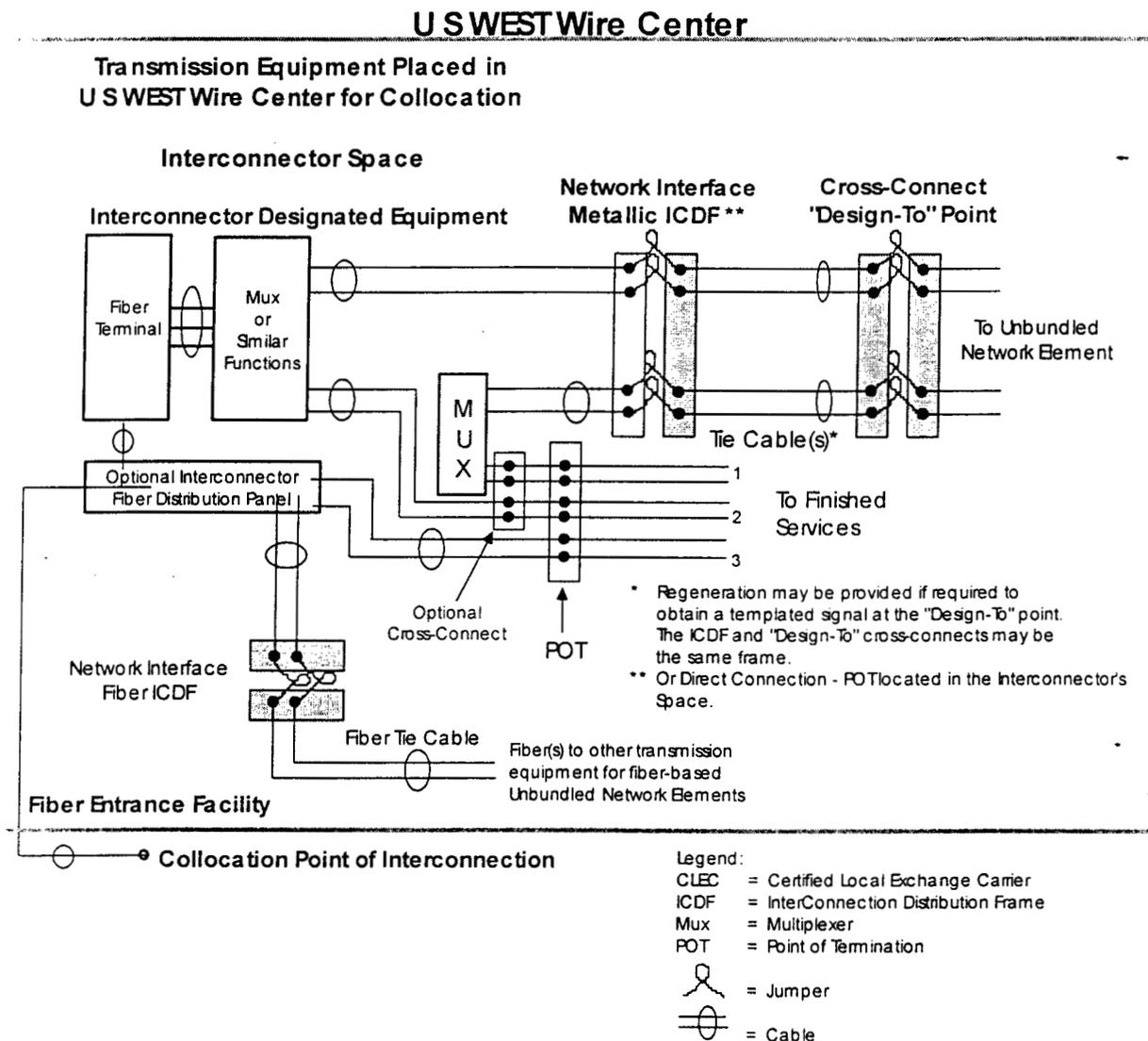


Figure 16-1 Typical Wire Center Arrangement for Finished Services

The CLEC must provide space to mount the termination equipment in their collocation area if they choose to establish their NI inside collocation space. The space requirement will vary with the type of service and NI ordered. The equipment to be placed in this space may be a jack, terminal block, DSX panel, Fiber Distribution Panel or other type of equipment. The technical publication describing the specific Finished Service should be consulted for further information about the NI.

16.3 Point of Termination Network Interfaces

The technical publications, tariffs or catalogs describing U S WEST Finished Services may not specifically include CLECs. For purposes of selecting NIs when CLECs are not included, the CLEC (a Carrier) will be treated the same as an Interexchange Carrier (IC). Exceptions to this guideline for DS1 and DS3 NIs are listed later in this chapter.

Therefore, all NIs available to an IC are also available (where technically feasible) to a CLEC unless otherwise excluded by this chapter, other technical publications, tariffs, catalogs or regulatory order. Network Channel Interface (NCI) Codes available at an IC-POT would also be available at the POT in the wire center.

This assumption should be followed until the technical publication, tariff or catalog is revised to include the CLEC as a separate type of customer.

The CLEC may order a standard telephone line (a Finished Service) to their space for their own use. The CLEC in this situation is an End-User. The line will be installed in compliance with the appropriate state exchange tariff.

NIs typically include some form of connecting block or cross-connect panel provided by U S WEST (which may be the same connecting block or cross-connect panel used by U S WEST). In situations where the block or panel is physically located in a CLEC's cage or cageless area and for their sole use, the CLEC has the option of providing the equivalent block or panel. This alternative may be limited by another technical publication, tariff, contract or regulatory order.

It is recommended that U S WEST provide the block or panel. Should the CLEC opt to provide the block or panel, they must arrange with U S WEST concerning the termination of cables by U S WEST on the block or panel.

If the CLEC provides the panel for DS3 Finished Services, the SJA44 connector described in PUB 77324 must be of the BNC type.

U S WEST requires access to the NI for installation, testing and ongoing maintenance.

16.4 Design and Provisioning Responsibilities with Finished Services

U S WEST will design, install and maintain the Finished Service as defined in the appropriate tariff, catalog, contract or technical publication. Some exceptions to these definitions are discussed in Section 16.5. The service will be delivered to the POT as previously defined. U S WEST will maintain records of the service.

The CLEC has the responsibility of designing, installing and maintaining all facilities and equipment on their side of the POT. The CLEC will maintain any records they require for these facilities and equipment.

The CLEC has end-to-end responsibility for the service sold to their customer and ordering the appropriate Finished Service(s) from U S WEST.

16.5 Expanded Interconnection - Collocation (EIC) in FCC #5, Section 21

Finished Services may be purchased from several tariffs. Section 21 of FCC #5 describes a Finished Service version of Expanded Interconnection - Collocation (EIC) that may differ from other Finished Services, Unbundled Network Elements and some collocation requirements described in other chapters of this document. EIC is described in this section. Section 21 should be consulted for further information.

Contracts may also support EIC as described in Section 2.1. The descriptive material in this chapter also applies except as stated in the contract.

16.5.1 Comparison of Section 21 and Other Finished Services

Normal Finished Services of the Private Line Transport Service (PLTS) variety typically consist of two segments from the U S WEST wire center(s) out to the customer premise(s). An additional segment may also connect two wire centers if the PLTS is a multi-wire center service. PLTSs of this type ordered from Section 7 of FCC #5 are normally charged for two Channel Termination charges plus other charges as appropriate. Some configurations would only be charged one Channel Termination charge.

Due to the special nature of Finished Services ordered from FCC #5 which stop in the U S WEST wire center for purposes of connecting to a CLEC's IDE, a new channel termination charge was developed to recognize the shorter distances and reduced costs. This new type of channel termination is called an Expanded Interconnection Channel Termination (EICT). The EICT charge will replace one of the Channel Termination charges normally charged for the PLTS. A variation called an InterConnect Tie Pair (ITP) is described in Section 16.6.

The EICT may have NIs that are different than those found with a traditional Finished Service. This section describes the EICT NIs. The technical parameters of the channel may be different from the traditional Finished Service because of the different NIs.

The following DS1 and DS3 EICT descriptions may also apply to DS1 and DS3 Finished Services ordered from other tariffs or catalogs.

16.5.2 Services Available with EIC

EIC is available with certain specific Finished Services sold in FCC #5. Other services may be included when ordered out of other tariffs, catalogs or Interconnection Agreements. Table 16-1 lists some typical services. The list is not an all-inclusive list.

16.5.3 Virtual EIC Service

Section 21 of FCC #5 also describes Virtual EIC Service. Consult the tariff for general information. Other information about Virtual Collocation may be found in Chapter 4 of this publication.

Table 16-1 Typical Finished Services Available with EICTs and ITPs

EICT & ITP **	Finished Service ***	Technical Publication
Analog	Low Speed Data (LS1 and LS2) Telegraph/Teletypewriter (TG1 and TG2) Direct Current Service (MT3) Voice Grade Access Enhanced Extended Loop (EEL)	PUB 77307 PUB 77307 PUB 77307 PUB 77310 PUB 77403
Digital Data	U S WEST Digital Data Service Frame Relay Service (FRS)	PUB 77204 PUB 77312 PUB 77372 *
DS1	U S WEST DS1 Service Frame Relay Service (FRS) Switched Access Service, Switched Transport, etc. MegaCentral Service Local Interconnect Service /E911/CCSAC(LIS) Enhanced Extended Loop (EEL)	PUB 77200 PUB 77375 PUB 77372 * PUB 77203 * PUB 77392 PUB 77398 PUB 77403
DS3	U S WEST DS3 Service Frame Relay Service (FRS) Switched Access Service, Switched Transport, etc. MegaCentral Service Local Interconnect Service /E911/CCSAC(LIS) Enhanced Extended Loop (EEL)	PUB 77324 PUB 77372 * PUB 77203 * PUB 77392 PUB 77398 PUB 77403
Optical	Synchronous Service Transport (SST) Self-Healing Network Service (SHNS) ATM Cell Relay	PUB 77346 PUB 77332 PUB 77378

* Also discussed in this publication: FRS - Chapter 11, Switched - Chapter 14.

** See Section 16.6.

*** Other Finished Services may be available. See the appropriate tariff, catalog or contract for further information.

16.5.4 Expanded Interconnection Channel Termination (EICT)

Table 16-1 identifies five types of EICT and the types of services to which they may be connected. These EICTs are described in the following sections. Appropriate NCI codes are included. Similar EICT rate elements may be found in other tariffs, catalogs or contracts that apply to additional services.

Figure 16-2 illustrates a typical PLTS Finished Service with EICT arrangement. The service provides a channel from a NI at the CLEC end, through U S WEST's network, and on to the NI at the other end. The EICT rate element represents the cable and any other equipment items located between the NI with the CLEC and the last cross-connect frame in the U S WEST network.

- **Example of Private Line Transport Service Illustrating an Expanded Interconnection Channel Termination (EICT)**

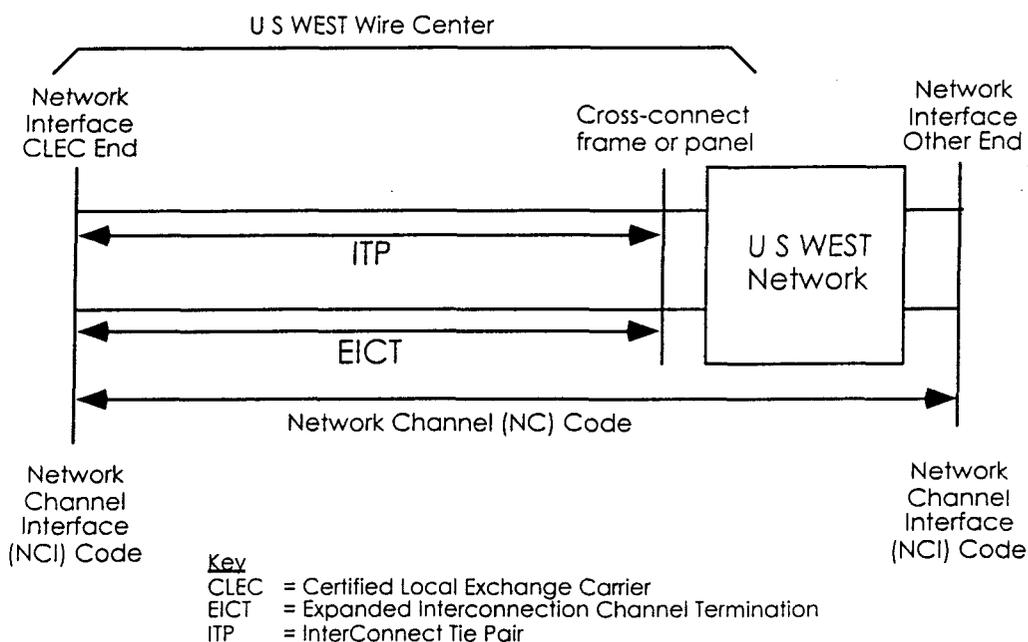


Figure 16-2 FCC #5, Section 21 EICT/ITP Arrangement

Both NIs are represented by NCI codes. The PLTS channel is represented by a NC code. These codes are used to order the PLTS.

The NI at the CLEC end usually has a connecting block or some form of cross-connect panel as the physical NI. Some jurisdictions permit the CLEC to supply this device.

As discussed in Section 16.5.1, the EICTs described in this section may apply to Finished Services not listed in Table 16-1. The appropriate technical publication should be consulted for information about these services. Some descriptions may have to be modified as discussed later in this section.

16.5.5 Analog EICT

The Analog EICT is used with analog Finished Services such as those identified in Table 16-1.

Voice Grade PLTS is described in PUB 77310. The columns titled "Interconnector" in the NC/NCI Combination tables of PUB 77310 identify the valid NCI codes for each NC code. See the publication for further information.

PUB 77307 identifies the applicable NCI codes for the Low Speed Data and Telegraph/Teletypewriter Services. The NCI codes at the IC-POT should be used.

The only valid NCI code at the CLEC end for Direct Current Service is 02QC8.DC3. This NCI code is defined as *Central Office Manual Cross-Connect DS0/Voice Termination, Direct current or voltage for DC/Low Frequency Control Signals or Low Speed Data (30 Baud). These options can be provided on derived facilities.* See the technical publication and the tariff for further information.

16.5.6 Digital Data EICT

The Digital Data EICT is used with the U S WEST Digital Data Service (DDS) described in PUBs 77204 and 77312 and Frame Relay Service described in Chapter 11 and PUB 77372.

DDS is described in PUB 77204. The columns titled "CLEC NI" in the NC/NCI Combination tables of PUB 77204 identify the valid NCI codes for each NC code. The NCI codes applicable to the Digital Data EICT are the codes starting with 04DO5. These NCI codes are described in PUB 77312. See the publications for further information.

The NCI codes for Frame Relay service for the Digital Data EICT are at the 56 kbit/s and 64 kbit/s rates only. The valid CLEC end NCI codes are 04DO5.E for 56 kbit/s and 04DO5.F at 64 kbit/s. These NCI codes are described in PUB 77312.

The 04DO5 NI requires same-source synchronization to operate properly. CLECs must purchase synchronization as described in Chapter 13.

16.5.7 DS1 EICT

The DS1 EICT is available with the services such as those identified in Table 16-1. The table also lists the publications describing the services. The DS1 EICT normally uses a templated DSX-1 signal using the NCI code of the type 04DS9. This EICT includes the regenerator required to provide the templated signal. See the listed publication for further information.

16.5.8 DS3 EICT

The DS3 EICT is available with the services such as those identified in Table 16-1. The table also lists the publications describing the services. The DS3 EICT normally uses a templated DSX-3 signal using the NCI code of the type 04DS6. This EICT includes the regenerator required to provide the templated signal. See the listed publication for further information.

16.6 InterConnect Tie Pair (ITP)

16.6.1 General

There may be instances where a DS1 or DS3 NI does not require a templated signal. That is, the CLEC's IDE is within the maximum distance from the last DSX panel in the U S WEST network (Figure 16-2). Design rules are discussed in Chapter 15.

Under these circumstances, the CLEC may choose to order the Finished Service without regeneration. This is accomplished by ordering an InterConnect Tie Pair (ITP) tariff rate element from a tariff or contract instead of an EICT rate element.

There are no ITPs at the DS0/voice level since regeneration is not an issue and there are no opportunities for cost reduction.

The NC and NCI codes at the other end of the PLTS are described in the appropriate technical publications when using the ITP. The NIs (and their respective NCI codes) at the CLEC end of the PLTS are described as follows.

16.6.2 DS1 ITP

The DS1 ITP is available from FCC #5, Section 21 with the DS1 services identified in Table 16-1. The table also lists the publications describing the services. The service is also available as identified in approved Interconnection Agreements. Other tariffs and catalogs may identify other services and their respective technical publications.

However, these publications do not describe the NI at the CLEC end of the ITP. This NI is described here.

The valid NCI codes for the CLEC's end of the DS1 ITP is 04QB9.11. This code is described in Table 6-5.

Specifically, the NI does not normally provide DS1 signal levels as specified by GR-342-CORE (i.e., a templated signal). That is, the 04QB9.11 NI is **not** a 04DS9-type of NI. Further information about 04DS9-type NCI codes may be found in PUB 77375.

One exception to this would be if the CLEC chooses to use the DS1 ICDF as the NI **and** the ICDF is a DSX-1 with a DSX-1 templated signal (i.e., the ICDF is also the "Design-To" Point). If both of these requirements are met, the ITP and EICT are technically identical.

In this application (Figure 16-1), the last cross-connect in the U S WEST network is a DSX-1 cross-connect which has a templated signal. The 04QB9.11 NCI denotes that the templated signal at the DSX-1 is attenuated by the length of the cable represented by *ITP* in the figure.

The cable will be shielded, paired cable. Chapter 15 contains further information about regeneration and design issues. The *ITP* will use the type of cable (i.e., 22, 24 or 26-gauge shielded cable) that most nearly permits connections to IDE without the need for a regenerator. The CLEC has the responsibility to determine if additional regeneration is required for their IDE to properly operate.

Normally, 22-gauge shielded cable is used (see Table 15-1). While most installations will not require regeneration to reach IDE locations, there may be instances where distances exceed those discussed in Chapter 15.

However, if the CLEC wishes to place a DSX-1 between the ITP and their IDE, a regenerator will be required if they wish to achieve a templated signal at their DSX-1.

16.6.3 DS3 ITP

The DS3 ITP is available from FCC #5, Section 21 with the DS3 services identified in Table 16-1. The table also lists the publications describing the services. The service is also available as identified in approved Interconnection Agreements. Other tariffs and catalogs may identify other services and their respective technical publications.

However, these publications do not describe the NI at the CLEC end of the ITP. This NI is described here.

The valid NCI codes for the CLEC's end of the DS3 ITP is 04QB6.33. This code is identified in Table 6-5.

Specifically, the NI does not normally provide DS3 signal levels as specified by GR-342-CORE (i.e., a templated signal). That is, the 04QB6.33 NI is **not** a 04DS6-type of NI. Further information about 04DS6-type of NCI codes may be found in PUB 77324.

One exception to this would be if the CLEC chooses to use the DS3 ICDF as the NI **and** the ICDF is a DSX-3 with a DSX-3 templated signal (i.e., the ICDF is also the "Design-To" Point). If both of these requirements are met, the ITP and EICT are technically identical.

In this application (Figure 16-1), the last cross-connect in the U S WEST network is a DSX-3 cross-connect which has a templated signal. The 04QB6.33 NCI denotes that the templated signal at the DSX-3 is attenuated by the length of the cable represented by *ITP* in the figure.

The cables will be coaxial cables. Chapter 15 contains further information about regeneration and design issues. Table 15-1 mentions two types of coaxial cable. The ITP will use the type that most nearly permits connections to IDE without the need for a regenerator. The CLEC has the responsibility to determine if additional regeneration is required for their IDE to properly operate.

While most installations will not require regeneration to reach IDE locations, there may be instances where distances exceed those discussed in Chapter 15. If the GLEC wishes to place a DSX-3 between the ITP and their IDE, a regenerator will be required if they wish to achieve a templated signal at their DSX-3.

16.6.4 Optical ITP

There is no Optical ITP tariff rate element for optically-based Finished Services. All charges are included when the fiber ICDF terminations are ordered or are included in the optically -based Finished Services. Some of these services are listed in Table 16-1.

16.6.5 DS1 and DS3 ITPs Ordered from State Tariffs

Finished Services ordered from state tariffs also use ITPs. Some tariffs may still call them EICTs. The state tariffs do not distinguish the use or lack of regeneration by name as the FCC tariff does.

The DS1 and DS3 ITPs with regeneration are identical to the DS1 and DS3 EICTs as described in Sections 16.5.7 and 16.5.8 respectively.

The DS1 and DS3 ITPs without regeneration are identical to the DS1 and DS3 ITPs as described in Sections 16.6.2 and 16.6.3 respectively.

16.7 EICTs and ITPs Ordered from State Tariffs, Catalogs or Contracts

Some interconnection agreements, state tariffs or catalogs use EICTs and ITPs in a manner similar to the FCC applications described in the previous section. Unless the specific interconnection agreement, state tariff or catalog describes the EICTs or ITPs differently, the EICTs will be as described in Section 16.5.4 through Section 16.5.9. The ITPs will be as described in Section 16.6. Some descriptions may differ only by name.

These interconnection agreements, state tariffs or catalogs may involve services not included in the FCC tariff. However, the EICT and ITP descriptions should apply at the appropriate level.

The specific agreement should be consulted for further information concerning EICTs and ITPs purchased from an agreement.

16.8 Direct Connection

A CLEC that wants a guarantee that a Finished Service never goes through two successive cross-connect frames via a tie cable must order a Direct Connection arrangement as described in Chapter 3. The CLEC may choose any of the Direct Connection options described in Chapter 3. This tie cable may be cable either repeatered or non-repeatered.

16.9 Summary of DS1 and DS3 Finished Service NCI Code Usage

Table 16-2 summarizes the available NIs and their NCI codes for DS1 and DS3 EICTs and ITPs used with Finished Services and UNEs at a collocation site. The NCI codes at the other end of the transport service are as described in the appropriate technical publication. ~~The CLEC may choose any of the options described in Chapter 3.~~

Table 16-2 Summary of DS1 and DS3 EICT and ITP Network Interfaces

Application Type	With Regeneration	Element Name	NCI Codes	
			DS1	DS3
FCC Finished Service	Yes	EICT	04DS9.xxx *	04DS6.xxx *
	No	ITP	04QB9.11	04QB6.33
State Finished Service	Yes	ITP	04DS9.xxx *	04DS6.xxx *
	No	ITP	04QB9.11	04QB6.33
UNE	Yes	ITP	04QB9.11R	04QB6.33R
	No	ITP	04QB9.11	04QB6.33

* The x's denote positions for several option codes. See the appropriate technical publication for further details.

CERTIFICATE OF SERVICE

I hereby certify that the original and 10 copies of AT&T's Supplemental Filing on Checklist Items 7 & 10 regarding Docket No. T-00000A-97-0238, were sent via overnight delivery this 27th day of July, 2000, to:

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