



UC2B Policy Board Agenda

Regular Meeting

May 24, 2012

6:00 - 7:30 p.m.

Council Chambers, 102 N. Neil Street, Champaign, Illinois

- I. Call to Order
- II. Roll Call (By Roster) – Determine Quorum
- III. Approve Agenda
- IV. Approval of Minutes from the May 9, 2012 Policy Board Meeting
- V. *Action/Discussion Items: (In this section, items will be presented to the Board and opened for technical questions. Then we will go to the audience for comments—audience comments are limited to five minutes per person—then we will return to the Board for general discussion and questions.)
 - a) *Resolution 2012-10 Approving a Contract for Phase II FTTP Construction and Installation (6:05)
 - b) *Resolution 2012-11 A Resolution Approving IRU and Maintenance Agreement Templates (6:20)
 - c) *Resolution 2012-12 A Resolution Approving Wholesale and Dark Fiber Services and Rates (6:30)
 - d) NTIA Grant Report (7:10)
 - e) Canvassing Update (7:15)
 - f) Phase III Network Expansion Opportunity (7:20)
 - g) Urbana Testbed for New Deployment Methods (7:25)
- VI. Tasks to complete for next meeting
 - a) Policy Board Officer Appointments
- VII. Items for future meeting agendas
 - a) Field Orders – Interim J.U.L.I.E. Locating Services and Fiber Restoration (Vandeventer, Shonkwiler)
 - b) UC2B Core Values Discussion
 - c) Policy Statement Regarding Use of Public Resources by Private Entities Furthering an Articulated Public Purpose (Schnuer)

UC2B is an inter-governmental body. The City of Champaign serves as its administrative agent. The City of Champaign strives to ensure that its programs, services, and activities are accessible to individuals with disabilities. If you are an individual with a disability and require assistance to observe or participate, please contact the City of Champaign at 217-403-8710 at least 72 hours prior to the scheduled meeting date.



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VIII. Public Participation

IX. Adjournment

X. Next Meeting:

Special Policy Board Meeting

Wednesday, June 6, 2012 – 12:00 noon

Council Chambers, 102 N. Neil Street, Champaign, Illinois

Wednesday, June 13, 2012 – 12:00 noon

Council Chambers, 102 N. Neil Street, Champaign, Illinois

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UC2B Policy Board Minutes

Regular Meeting

May 9, 2012

Location:

City Council Chambers
102 N. Neil St.
Champaign, Illinois

Board Members Present: Mike Smeltzer for Abdul Alkalimat, Brandon Bowersox, Mike DeLorenzo, Deborah Frank Feinen, Minor Jackson, Pete Resnick, Richard Schnuer, Tracy Smith

Others Present: Teri Legner, Fred Stavins

Members absent: Abdul Alkalimat, Zernial Bogan

Action Items:

- I. The meeting was called to order at 12:03pm by Chair Feinen.
- II. Roll Call – Determine Quorum
- III. Approve Agenda: Bowersox moved, Smith seconded the motion to approve the agenda. The motion passed by voice vote.
- IV. Approval of Minutes from the April 11, 2012 and April 18, 2012 Policy Board meetings: Resnick motioned, DeLorenzo seconded the motion to approve the minutes as written.
- V. Action/Discussion Items:
 - a) **Continued Discussion and Actions Requested on Recommendations Regarding Business Pricing and IP Address Pricing:** Smeltzer briefly updated the Board on the document. When this group last met, it asked the Technical Committee to look at this, examine it, and come back with recommendations as they saw fit. At yesterday's Technical Committee meeting, they asked for some clarification and the redlined version is what is in today's packet. There are relatively minor changes that make it clearer.

Smith continued that overall, the Tech Committee supported the recommendation with the proposals that accompanied the email this morning. They liked the idea of an open access network but they also recognized that



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that is really yet to be defined in terms of a dark fiber network. It is not their responsibility to define, either. They also felt that the donation methodology makes sense and they support it but the donations themselves will be different enough that the value of the donation should be evaluated.

Technical questions: Schnuer asked what the email from earlier in the day meant by stating that “existing infrastructure was excluded.” How does it relate to those other concerns that were raised? Smeltzer replied that one of the changes was trying to be more specific in terms of use of language, lateral cables, etc. With the exception of something that UC2B has built, there are no existing laterals. Champaign Telephone does not have any, nor Volo, etc. Anything we are talking about right now would be new construction. What we are not trying to do is make any attempt to grab or take ownership of anything existing. What will be constructed specifically for UC2B are rings to a building or a series of buildings.

Smith said they spent a great deal of time talking about what is a lateral and what it means if a local provider has conduit that goes across town. From their perspective, that is part of the provider’s backbone. This recommendation only covers laterals.

Schnuer clarified that the company could connect it to UC2B’s backbone without having that infrastructure follow that policy. Smeltzer confirmed yes. He added that it doesn’t affect any existing laterals, just laterals from rings to a commercial business and that is it. This is not imminent domain. If there are laterals that connect to us, as an owner, you have choice in who your provider is. Company X is not going to be the only one. We do not want anyone holding the fiber ransom.

Resnick said that there must be current companies which have provided fiber through the public right of way. However, Smeltzer said that this does not affect them. Resnick asked if a private company that has conduit in the ground happens to be near a UC2B ring and some of that fiber goes by a building it wants to connect to, would that company have to donate if he wants to connect? Smeltzer replied that that was kind of a funny situation but in short, no. If the company is connecting to UC2B’s ring, the recommendation is what affects this scenario. If the company has intermediary fiber that it owns, then no, that is not a lateral. When pressed, Smeltzer acknowledged that there is probably a way to defeat the policy. It would be expensive and not in a company’s best interest but if they wanted to get around it, they could. UC2B has been blamed for everything through the public right of way since construction began. If a company is connected to UC2B and service goes down, that is a black mark for UC2B. That’s on us.



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Resnick then asked if Comcast wanted to connect in the far outreaches of the suburbs and they decided to go through UC2B, they could use UC2B backbone structure to route their customer on their end of the lateral (copper), use it to route, and they'd be routing over the UC2B network – would that work? Smeltzer answered that they would have to pay to do that, yes. Resnick asked what if what they want to install is copper and not fiber? Smeltzer said that this only applies to commercial and 99% of what Comcast does is not commercial. This is a very small case to begin with. UC2B has not thought about a policy for residential because dark fiber to people's homes is "kind of crazy." There is nothing to say that tomorrow, John Doe can't wire up Robeson Meadows. This is not about routing but dark fiber.

Smeltzer continued that as far as we know, and our attorneys, there is no precedent for how one defines a dark fiber network to the building.

Schnuer asked about the issue of contract in specifying the use, as he was concerned about the uses in particular (subletting, specifically). The sewer company regulates what is put in it but it does not care about the production of how it gets there. Why do we care about what the data is comprised of and what it is used for?

Smeltzer said that part of what we are doing looks like AT&T. We are different in that we are more in tune to the community's interests and doing this in an open access network. No one leases dark fiber from AT&T. We do not have shareholders but need to worry about sustainability. Some of these policies are about long-term sustainability. The City of Champaign has X number of strands on rings and if they were to sell them to another company, UC2B does not earn more money off of that. But we need that money on a recurring basis.

Schnuer asked if he bought an IRU tomorrow, why should UC2B get more? Smeltzer replied that if a person who bought an IRU were to use it, that is one thing, but to give it to someone else, it's money out of UC2B's pocket. There are times when we may be asked to move the fiber ring. Typically, we would go back to the holders of the IRUs and say they have to pay us to repair this. We want to have a direct business relationship with anybody owning dark fiber so we can get direct payment and communication. We can force that through the IRU contract. They're called indefeasible rights of use contracts.

Bowersox asked about point number (5) in the document on no subleasing. One of the other scenarios that came up in the emails from earlier in the day is what if Champaign decides to go into the expansion phase on their own and build out to the residents but Urbana does not? The City would not be able to use its own strands in order to become an ISP.



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Smeltzer said that if the Council adopted something saying they are an ISP, that would be their decision. He hoped they would do it under the UC2B umbrella. But the strands they have are not sufficient enough for that, anyway.

Bowersox said that the question is that the dark fiber can't be subleased or sub-assigned. Could the Cities or school districts decide to use their fiber to provide service to homes on their own?

Stavins added that the IRUs are not yet drafted. Can we restrict that? Yes, probably. We can restrict use in many different ways and that is not unusual. When asked if the proposed policy addresses this scenario, Smeltzer replied that they are trying to maintain a revenue flow and business relationship, bottom line.

Schnuer said his understanding is that we are going to restrict use to what they do with it when they bought it. So if a person or company buys fiber, s/he can only do X with it. Smeltzer said that each IRU contract is a negotiation between UC2B and that entity. Champaign Telephone would say we are in the business of providing telecommunication services and that is what we are doing. If Company X is going to provide services and then don't want to use the fiber anymore, do they want to sell it? It could be that the contract says they must have UC2B's permission to sell to someone else. We have to find language to accommodate "I'm buying this for X and now I want it for Y," as Schnuer phrased it.

Audience comments:

Bill DeJarnette: the problem is the perception of value. If restrictions are placed on my assets, they have less value to me. This hinders that and stifles creativity. The simple solution is that it is my IRU and it is my choice. We'll get maintenance based on the number of fibers. The other issue of mandatory donation – it smacks of eminent domain. Expansion can only happen through outside capital. The chafe is the word "mandatory." The goal is to get them to connect. The simple solution is that donation is not mandatory – a free market will help drive that.

Resnick asked DeJarnette if he voted for the recommendation, as DeJarnette is on the Technical Committee. He answered that he did with the proposed changes. It satisfies.

Mark Seiffers of Pavlov Media: I was concerned with the fairness aspect of the IRUs for the original members of the business. I was approached but do not want to buy in because of what I am hearing regarding the change of



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business and losing access (maximizing asset value). Even if you sub-lease, it's your responsibility. We are concerned that if we were to buy rings in the network, having restrictions on how to monetize them does not really seem to make sense. It seems rather intrusive, especially as companies try to capitalize assets. It either needs to be owned or not owned. Maintenance rates will go up, as well, over time. In terms of the laterals, there are a lot of lateral networks already in Champaign. I would propose that the Board looks at what their dark fiber agreements are independent of Ethernet services and get those definitions early. In the end, UC2B does have to compete with Comcast and Time Warner and give timely service. The more this lateral discussion goes on, it will become \$100 to connect. In the end, we need UC2B to be competitive or it won't be deployed.

Schnuer asked whether, regarding moving fiber, if Mark saw that as an issue. He replied that technically we can lease poles from the power company for a fee per month per pole. The power company charges costs when it has to repair something. The cable company is delivering service to all sorts of customers. You need a structured document on pole leasing that discusses pole space.

Karl Gnadt, MTD: this has to be approved before the IRUs are written, right? What is the timeline? I can see both sides of the argument. I feel like it should be unpacked more. Legner answered that some timing is more urgent than others. Stavins said they will have a draft of an IRU within a week. Some of these policy issues will not be made final until we have more final decisions.

Smeltzer added that the urgency regarding the IRUs is that we are rapidly approaching the point where we need to have revenue. We need to have some of it show up in June and some in July and there is not a lot of time left. We can pull Section 5 out of this recommendation and it doesn't change a whole lot. Maybe we can scratch that whole clause. Bowersox asked Mr. Gnadt what his perspective is on sub-leasing.

Gnadt replied that he was conflicted. It seems like a great opportunity for the district to sub-lease and reduce expenses. That's good for the taxpayers. On the other side of the argument, the district is all about partnerships and UC2B is a conglomerate of partnerships. He understands both sides of the argument, however, and did not have a proposed solution.

Peter Folk of Volo: I want to get Volo's interests clearly out on the table. We have a substantial fiber network and it's important to us to connect to UC2B's network. If we decided to interconnect, we would need to buy strands for now. We would need to justify that purchase, which would be substantial, and in order to do that, having restriction on either resale of that IRU (which is



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supposed to be capitalizable) makes it infinitely harder. It makes it so that there's zero value. I can't say for sure but if you restricted my ability to get rid of that IRU to sell that asset when I'm done with it or to lease it to somebody else, I'm pretty sure I would not be able to justify the cost that it would take to buy those fibers. There are other aspects of Volo's interests. I own a large backbone that is interconnected that would be counted as a backbone. But I also own other fibers that go elsewhere. If I have a strand between two apartment buildings and want to connect them to UC2B, I would have, under this policy, two choices: build a new lateral to one of those complexes and donate the lateral to UC2B or convince the current owner of the connection to donate their entire fiber infrastructure, which goes across Campustown, because they have infrastructure that is spliced together and it counts as a lateral. It's not feasible now to connect. I have to rebuild it. I strongly support what Bill DeJarnette said – if you make it tasty, people will eat the carrot. This donation methodology is a good carrot if I'm going to build a lateral and unencumbered by these other issues, yes I'd want it. Volo would like to do ISP services – the most expedient way we can do that is we would find somebody who's got part of the network and do a test bed. Under this current scheme, that would be hard. As chairman of the broadband access community, I can say without a doubt that every member of that committee, when Mike was a member of that committee, that this policy would not have flown. You are restricting what people can do when they connect. It is to promote connection, not to make it more difficult. That is the point of UC2B.

Mike Hosier, Champaign Telephone: I have a couple of things to say on both the use of fiber and the laterals. I do not think UC2B wants to restrict what people want to do on the fiber. I asked Smeltzer if we make this commitment, who will we be in competition with and the answer was, anyone else who buys fiber on the rings. Now it's that we're not in competition with those people but anybody who makes a side deal with the Cities or MTD – I don't think that's reasonable because they had an opportunity to buy in as I did and now they're cutting a side deal with some other entity that owns fiber on the system. As to donated laterals, I do not have laterals. Any that I have I will buy and install. Initially, I did not think I wanted to donate my laterals because that gave me an advantage. Smeltzer convinced me otherwise and said that is not the intent of UC2B; we want an open access network. I agreed and if I pay for a lateral and install it, I will really own half and if someone else wants to come and buy part of it later to provide services, I am okay with that. It is open competition, open network. I do not think it should be case by case.

Legner asked for him to speak to the urgency of making a decision as it relates to Champaign Telephone. Hosier added that Mr. Folk talked about IRUs, banks, and financing. The bank wants to know what they're financing and that's the IRU. I have climbed the hill on explaining what an IRU is and



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convinced two banks to finance this project. They need to know what they're financing, however. Back to what Mike said about financing the laterals: I am not coming with money until I have an IRU to take to the bank and my attorney can review, as well. You can take as long as you want but I am not funding anything until I get the IRU. So, it's urgent, if you want my opinion.

Board comments:

Bowersox said that for Section 5, he thought waiting on it sounded like a good idea, especially since more critical conversations needed to happen before passing it. However, he said he would pass the recommendation without that section. He asked if the Board should add a sentence that says something about the pre-existing stuff. In any exceptional cases, contact UC2B and we will consider it on a case-by-case basis, guided by the policy. Smeltzer agreed.

Resnick wanted to be sure that existing infrastructure is not what the policy is about. Smeltzer clarified whether he meant that the general intent is that we would make a good faith effort to determine the infrastructure first. (Yes.) Chair Feinen said they would have the attorneys amend it as such.

Bowersox added that they are voting on a general policy, with the next step being the lawyers will write up the IRU language. Jackson said he did not understand being asked to approve the general policy and amending anything later. He did not feel comfortable doing so. Chair Feinen added that the proposed changes to the recommendation had been discussed and that the attorneys will use this as the language to draw up the IRUs. Our language does not draft a legal document – this is for Stavins to take back to legal counsel. Jackson said he understood and just wanted to make sure the concerns of the other local businesses were reflected.

(Mike DeLorenzo exited at 1:12 p.m. prior to the recommendation being approved.)

Schnuer asked about the discussion on resale; Chair Feinen said that will be a larger discussion for later.

Motion to approve the recommendation without Section 5 and add a sentence to clarify that in any exceptional cases where there is some question of whether an existing lateral is a backbone, to contact UC2B and we will look at them in light of this policy. Bowersox motioned, Schnuer seconded. Jackson opposed. The motion passed by voice vote.



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- b) **Marketing and Outreach Subcommittee Update – Outreach and Customer Acquisition Proposal:** Legner updated the Board. Last month, we had a report that talked about a customer acquisition proposal that Richard wrote. It was just there for your information. We are beefing up our outreach activities. In the essence of time, we implemented that proposal and Brandon and Richard can speak to that.

Bowersox said that on page 35 of the PDF packet, there is a good summary of what has happened to date. Safiya Noble and Chris Hamb, who are here at the meeting, are working on this and getting the effort organized.

Technical questions: none

Audience comments:

Peter Folk of S. Maple Street: everybody who knows me knows I am a big fan of Safiya Noble. I find it unpleasant to have learned through the grapevine that they hired somebody to do this. I also like Chris, he does good work. But it makes me uncomfortable to know these things are not out for bid, in the community. If at any time you are going to bring someone new on board, put it out at the meeting. But I like Safiya and I like Chris.

Legner replied that the City has the ability to hire people on a temporary basis for specific purposes and that is what we did through the City Manager's hiring capability for a pre-set amount of work. In the case of Chris, he was hired as an outside contractor. We went through all the appropriate processes to obtain both employees. We were looking for people who had experience with the project who could hit the ground running and who have unique capabilities.

Schnuer added that while he does agree that everything was done within the Administrative Policies in Champaign, he would prefer in general to make the opportunities available to the public. We heard from a number of people, including Reverend Bogan, and that people in the community are not aware of UC2B and time is of the essence. This is a case where in my mind we did something expedient because the benefits outweighed the cons.

Bowersox said that as far as marketing is going, he was completely happy with the way things are going. He thought we would see more of these decisions where between now and January 2013, we have to trust our staff to execute. There is not enough time between now and December for us to ask a committee to make every day-to-day operational decision in this way. If we can't get something on an agenda, we will have to pull the trigger on a decision.



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Resnick suggested that perhaps the staff can highlight on the agenda that a decision is imminent. He agreed with Mr. Folk that he preferred to do these things in the public as much as possible; not just for job hiring but for any spending of money.

Ray Mitchell: as a member of the Marketing Committee, I was unaware of Chris's hiring. I would prefer if you would not allude to things that come from the Marketing Committee that I am unaware of when I am supposed to be on the committee.

- c) **U.S. Ignite:** Bowersox explained that this is a federal initiative to try to tie these together in an umbrella network. The University of Illinois has paid the first year's membership so that Champaign-Urbana can be part of this. The memo spelled out a bit what that is. It is a great opportunity to get some of the experimental applications out there. It is a wonderful program and there is a lunch event later in the month, to which Mayor Gerard is attending.
- d) **NTIA Grant Report and Update:** Smeltzer said there is not one. We filed our quarterly report and he believes they have accepted it but he will know for sure in a few days. A final copy will be provided when it's finished.
- e) **Canvassing Update:** as LaEisha Meaderds had to leave, there was no update.

VI. Tasks to complete for next meeting

VII. Items for future agendas: Smeltzer will be bringing a broader package of things regarding strategy, IRUs, fiber leases, and what we charge for providers to connect to our network in the first place. It is about 80% complete at this point and then hopefully there will be some action taken at the next meeting. Section 5, removed from today's recommendation, will be reserved for the larger Section 5 discussion.

VIII. Public Participation: none

IX. Adjournment: Chair Feinen adjourned the meeting at 1:32 p.m.

REPORT TO UC2B POLICY COMMITTEE

FROM: Teri Legner, Interim UC2B Consortium Coordinator

DATE: May 18, 2012

SUBJECT: Resolution 2012-11: A Resolution Approving Standard Form of UC2B IRU Agreements and Maintenance Agreements

A. Introduction: Approval of this Resolution approves the proposed IRU and Maintenance Agreements attached hereto. These agreements have been prepared by Jim Baller and Casey Lide of Baller and Herbst Law Group, in conjunction with UC2B staff. The documents are consistent with the previously-approved Report on IRU's provided by the Technical Committee to the Policy Board last Spring and with recently-approved policies regarding private investment of the network expansion.

B. Recommended Action: Staff recommends approval of this Resolution.

C. Summary:

- The Technical Committee recommended and the Policy Board approved a Report regarding IRUs last Spring. That Report is attached in this agenda packet to the report on Wholesale Pricing and Dark Fiber Leases.
- The Technical Committee and Policy Board reviewed proposed policies regarding private investment in network expansion. Those are attached to the draft IRU document herein as well.
- The Executive Summary regarding UC2B Draft IRU and Maintenance Agreements (attached) outlines the issues and content of each.
- Approval of the Resolution will authorize staff, along with outside legal counsel, to begin review with each of the original "investors" in UC2B, including the cities, school districts, Champaign Telephone, and others, and also with IDOT in exchange for the use of State-controlled right-of-way.

D. Background:

- 1. Report regarding IRUs approved in 2011 by Policy Board.** The report, as attached to the memorandum on Wholesale Pricing and Dark Fiber Leases in this agenda packet, was considered and approved by the Technical Committee, presented to the Policy Board, and

approved with minor revisions from the floor. Those revisions have been included in the document as attached.

2. **Policy Regarding Private Investment in Network Expansion.** The Technical Committee reviewed the policy that was proposed by staff and made a recommendation for the Policy Board at its meeting on May 9, 2012. The Policy Board generally approved the policy as written with some minor editing recommended, including deletion of a section relating to the ability of a private investor to sublease its access/use of the infrastructure to another party. The policy as revised from the floor and approved is attached to the draft IRU document included herein.
3. **IRU and Maintenance Agreements.** Staff has been working with Baller and Herbst to prepare the documents that are attached. They reflect Baller and Herbst's expertise and recommendations from their work on many other similar projects they have been involved in across the country, along with UC2B's policies and positions as reflected from the documents that are noted above. Their Executive Summary identifies the primary content of each. Staff recommends that the Policy Board focus its questions and comments to those of this higher policy level rather than review and editing of the exact language that is contained within the documents. Outside legal counsel, along with the City Attorney, have devoted significant effort to ensure that the language is consistent with and complementary of Board policies and direction.

E. Alternatives:

1. Approve the Resolution which approves the IRU and Maintenance agreements in substantially the same form and authorizes staff to begin discussions with potential grantees.
2. Do not approve the Resolution and provide alternative direction.

F. Discussion of Alternatives:

Alternative 1 will approve the IRU and Maintenance agreements as proposed herein.

a. Advantages

- Drafts have been prepared consistent with previous Policy Board direction
- Drafts have been prepared with content that is standard to the industry and consistent with Baller and Herbst's experience and expertise, along with the expertise and experience of the City's legal staff
- Allows staff and legal counsel to begin discussions immediately with potential grantees. Time is of the essence.
- NTIA staff have been asking about the status of the IRUs and maintenance agreements among the parties. Approval of the form of these IRUs and agreements is another

demonstration to NTIA that progress is occurring for UC2B which better ensures for them that we will be a successful federally-funded project.

- Allows for collection of grant “matching” funds to assist with construction of the network and connection to subscribers

b. Disadvantages

- There are none

Alternative 2 does not approve the Resolution and seeks further direction from the Policy Board.

a. Advantages

- Dependent upon Policy Board direction.
- May allow for deletion or inclusion of items that have been overlooked

b. Disadvantages

- If delayed, will delay receipt of grant “matching” funds which are necessary to comply with the terms of the grant award and necessary to fund construction

G. Community Input: Community input has been received on the IRU Report and the policy relating to private investment in network expansion at previous meetings. No input has been sought specific to these documents to date, but they represent the content of the previously-approved documents and the public will have the opportunity to provide comment on them specifically at the Policy Board meeting on May 24, 2012.

H. Budget Impact: Approval of this Resolution will allow for staff and legal counsel to begin discussions with our investors immediately which means that revenue associated with the agreements will begin to be received and allocated toward construction and customer connections. The approximate total value of the IRUs and maintenance agreements is \$3.4 million.

Prepared by:

Teri Legner
Interim UC2B Consortium Coordinator

EXECUTIVE SUMMARY:

UC2B DRAFT IRU AND MAINTENANCE AGREEMENTS

The following is intended to assist the UC2B Policy Committee in its evaluation and understanding of the draft IRU Agreement and Maintenance Agreement.

In brief, the IRU Agreement will execute a transaction involving a grant from the City of Champaign, acting as trustee on behalf of UC2B (the “Grantor”), to a particular Grantee of an “indefeasible right of use” (IRU) to certain unactivated or “dark” fiber strands (“Fiber Assets”) on the UC2B Network. More specifically, it provides the Grantee a right to use the specified fiber strands – which the Grantee will activate or “light” itself using its own equipment. The IRU is for a term of 20 years, for which the Grantee will pay UC2B a specified sum up-front as an “IRU Use Charge.”¹ The IRU Agreement is conditioned upon the execution of the separate Maintenance Agreement, under which UC2B will provide maintenance services on the Fiber Assets. The Grantee will pay UC2B a periodic maintenance fee.

The IRU consists of a main body of 10 Sections and several exhibits. The main body will be common to all Grantees, and the exhibits will be tailored to each individual Grantee. Once the Policy Committee is comfortable with the language of the main body of the IRU, Staff, along with Baller Herbst, will solicit comments on it from the original Grantees. After the comments are evaluated and either incorporated or rejected, the main body will be finalized and not further negotiated.

IRU Agreement:

- Nature of grant: The IRU confers an exclusive right to use only; it does not transfer legal title in the assets to the Grantee. Other than that, the IRU operates much like a sale (although the right to use reverts to the Grantor at the end of the term), and in general can be treated as a depreciable capital expense by a Grantee. (Section 5)
- Use by Grantee: Grantee may use the Fiber Assets for any lawful purpose, except:
 - o Grantee may not permit or provide for use of Fiber Assets by any other party without the prior written consent of Grantor. (Section 5.6)
 - o Grantee’s use is subject to current and future UC2B Policy Committee resolutions and statements or those of its successor Grantor must provide notice to Grantee of the adoption of any substantive amendments to existing, or new, policy statements affecting the IRU. (Section 5.6)
- Compensation:
 - o In exchange for the IRU, Grantee will pay to UC2B (1) an up-front “IRU Use Charge,” (2) a non-recurring “Provisioning Charge” and (3) a “Splicing Charge”. (Exhibit C)

¹ The Grantee would also pay an up-front one-time Provisioning Charge and a Splicing Charge. (Exhibit C).

- UC2B Policy Committee Resolutions and Statements:
 - o Grantees will be subject to the UC2B Private Expansion Policy, made a part of the Agreement by its inclusion as an Exhibit. (Section 5.3, Exhibit D)
 - o Grantees will be subject to other UC2B resolutions and statements, or those of its successor, concerning the use of the network by IRU holders, which may include a resolution addressing how IRU holders may use the Fiber Assets (i.e., the extent to which they can sub-lease dark fiber, etc.). (Section 5.6.1)
- Termination:
 - o Grantee may voluntarily terminate the IRU and surrender its rights in the fiber upon 12 months prior notice, but is not entitled to a refund of the IRU Use Fee. 12 months is recommended so that UC2B might adequately plan for the loss of income. (Section 3.2)
 - o UC2B may terminate for cause (i.e., default by Grantee). (Section 7)
- Authorizations: UC2B is responsible for obtaining all relevant authorizations concerning the physical Fiber Assets, including franchises, zoning approvals, pole attachment rights, etc. Grantee is responsible for all authorizations relating to the transmission of data over the Fiber Assets, if any. (Section 5.9)
- Contingent on availability of grant funds:
 - o The IRU is contingent upon the payment of federal and state grant award funds with respect to the Fiber Assets. If such payments are not received, UC2B has the right to rescind the Agreement. (Section 8.0)
- Assignment:
 - o UC2B possesses an unrestricted right to assign the Agreement. Grantee cannot assign the Agreement without the prior consent of UC2B. (Section 10)

Maintenance Agreement:

- Term and termination:
 - o The IRU Agreement is for a term of 20 years as is the draft Maintenance Agreement, with renewal “upon such terms and conditions as the Parties may agree.” There is a clause that allows UC2B to renegotiate the maintenance fee every three years, if needed, to accurately reflect actual maintenance costs, and any other considerations. (Section 2.0) There is also an annual CPI-based inflation adjustment.
 - o The Maintenance Agreement may be terminated for cause (i.e., in response to a breach) by either Party. It shall be deemed terminated upon the expiration or termination of the IRU Agreement. (Section 2.0)
- Maintenance obligations of UC2B:

- In essence, UC2B is obligated to keep the physical Fiber Assets which are the subject of the IRU Agreement in good working order, and at least sufficient to enable the Grantee to use the Fiber Assets as contemplated in the IRU Agreement. (Section 3.0)
- UC2B is responsible for active membership and compliance with JULIE, and any other authorizations. (Section 3.3, 3.4)
- Grantee is responsible for maintenance of its own equipment, including equipment used to activate the Fiber Assets. (Section 3.2). Grantee has the right to enter upon Grantor's property to maintain Grantee's equipment, subject to various conditions. (Section 4.0).
- Maintenance activities:
 - Scheduled maintenance: UC2B must notify Grantee at least five business days prior to performing any maintenance that may affect the performance of the Fiber Assets. (Section 6.1)
 - Emergency and Unscheduled Maintenance: In an unanticipated outage situation, UC2B (or its agent) must respond to perform Emergency Maintenance within six hours after the time UC2B is aware of the problem, unless delayed by Force Majeure Events. If UC2B (or its agent) does not respond within that time, Grantee has the right to self-help, and may undertake to repair the problem itself. (Section 6.2.2)
 - Relocation: Expenses for any required relocation of Fiber Assets shall be proportionally allocated among affected IRU holders and UC2B.
- Compensation:
 - Grantee will pay to UC2B an annual Maintenance Charge.
- Other terms: In general, the Maintenance Agreement employs many of the same terms as the IRU Agreement, including those related to assignment, confidentiality, indemnification, etc.

RESOLUTION NO. 2012-11

A RESOLUTION

APPROVING IRUs AND MAINTENANCE AGREEMENT TEMPLATES

WHEREAS, the Policy Committee has previously discussed and approved a Report Regarding IRUs and a policy regarding private investment in network expansion; and

WHEREAS, UC2B desires to offer IRUs and maintenance agreements to entities that desire access to the network to unactivated or dark fiber strands, including those entities that have previously committed, via a Letter of Intent, “match” funding toward the federal grant in 2009 and to the Illinois Department of Transportation in exchange for UC2B’s use of the State right-of-way for a portion of its network fiber; and

WHEREAS, UC2B may chose to offer IRUs and maintenance agreements to other entities desiring access to the network to unactivated or dark fiber strands; and

WHEREAS, the “template” IRU and Maintenance Agreements attached hereto are consistent with the Report Regarding IRUs and policy regarding private investment in network expansion recited above and provide for the terms and conditions under which other entities may gain access to the network.

NOW, THEREFORE, BE IT RESOLVED BY THE UC2B POLICY COMMITTEE, as follows:

Section 1. That the “template” IRU and Maintenance Agreement documents, which are attached hereto and incorporated herein, are approved and adopted for general use and authorized to be executed by the City of Champaign City Manager in substantially the same form.

RESOLUTION NO. 2012-11

PASSED:

APPROVED: _____
Policy Committee Chair

**AGREEMENT GRANTING INDEFEASIBLE
RIGHT TO USE OPTICAL FIBER ASSETS**

THIS AGREEMENT GRANTING AN INDEFEASIBLE RIGHT TO USE (“IRU”) certain fiber assets (“Agreement”) is entered into on ____, 2012 between the City of Champaign, Illinois, a municipal corporation acting as trustee on behalf of the Urbana-Champaign Big Broadband Consortium, an intergovernmental consortium of the University of Illinois Urbana-Champaign and the cities of Urbana and Champaign, Illinois, with offices at [address] (“Grantor”), and [NAME OF ENTITY], a [type of entity] organized under the laws of _____, with offices at [address] (“Grantee”), each a “Party” and together, the “Parties.”

RECITALS

1. As directed by the American Recovery and Reinvestment Act of 2009, Public Law 111-5 (“ARRA”), the U.S. Department of Commerce, through its National Information and Telecommunications Administration (“NTIA”), issued a Notice of Funds Availability (“NOFA”) under the Broadband Technology Opportunities Program (“BTOP”), 74 F.R. 33104 (July 9, 2009);
2. Grantor, acting through the University of Illinois, applied for and received BTOP Award ID No. NT10BIX5570044 (“Award”) totaling \$22,534,776, to establish a BTOP infrastructure project known as Urbana-Champaign Big Broadband or UC2B (“Project”);
3. Grantor, acting through the University of Illinois, applied for and received DCEO Award ID No. 11-031002 (“State Award”) totaling \$3,500,000, to establish an “Illinois Jobs Now” fiber-optic infrastructure project known as Urbana-Champaign Big Broadband or UC2B (“Project”);
4. Grantor owns or will own optical fiber network assets constituting a fiber optic network in and around the Urbana-Champaign area (“Network”);
5. Grantee desires to acquire from Grantor, and Grantor desires to grant to Grantee an indefeasible right to use certain fiber optic strands within the Network on the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the mutual promises set forth below, and for other good and valuable consideration, the adequacy and receipt of which are hereby acknowledged, Grantor and Grantee agree as follows:

1. Table of Exhibits Made Part of This Agreement

- Exhibit A: Identification of Fiber Assets
- Exhibit B: Fiber Specifications, Testing and Acceptance
- Exhibit C: Compensation
- Exhibit D: UC2B Private Network Expansion Policy
- Exhibit E: [UC2B Policy Statement / Resolution on further use]

2. Definitions

- 2.1 “Agreement” means this Agreement, any and all Exhibits and Attachments thereto, and any Addenda to which the Parties may agree from time to time.
- 2.2 “Associated Property” means the tangible and intangible property needed for the use of Fiber Assets. Associated Property includes, but is not limited to, connecting points, support structures and all underlying rights, but expressly excludes any rights in any electronic or optronic equipment.
- 2.3 “Authorizations” means the permissions a Party must have to perform its obligations under this Agreement, which may include franchises; licenses; permits; zoning approvals; variances; exemptions; grants of authority to use public rights of way or facilities; agreements to make attachments to poles, ducts, conduits, towers, buildings, rooftops, manholes, and the like; and any other approval of a governmental authority or third persons with respect to (i) the construction, installation, repair, maintenance, operation or use of tangible or intangible property, as the case may be, or (ii) any requirement by a governmental authority for the engagement in a business or enterprise.
- 2.4 “Authorization Fees” means all permit, right-of-way, easement, pole attachment, franchise, encroachment, or license fee, charge or assessment of any kind applicable to the placement and maintenance of Fiber Assets and Associated Property and appurtenances, whether imposed by a governmental authority or a private entity.
- 2.5 “Award” shall mean the financial assistance award issued by NTIA to Award Recipient for the Project, designated Award # NT10BIX5570044.
- 2.6 “Award Recipient” means the Board of Trustees of the University of Illinois, acting on behalf of the Intergovernmental Consortium known as Urbana Champaign Big Broadband (UC2B).
- 2.7 “Award Documentation” means documents relating to the Award which are available online at <http://www2.ntia.doc.gov/grantees/UniversityofIllinois>, or otherwise publicly accessible from NTIA, in addition to the actual grant application and Due Diligence documents filed by Award Recipient on which the Award was based.
- 2.8 “BTOP” means the Broadband Technology Opportunities Program of the NTIA.
- 2.9 “Dark Fiber” means fiber optic cable strands without electronic and/or optronic equipment and which is not "lit" or activated.

- 2.10** “Interconnection Point” means a point on one side of which is Grantee’s responsibility for ensuring its connections and paying for and installing its Equipment, termed Premise Side, and the other side of which point is the Network Side, for which Grantor is responsible as set forth in this Agreement.
- 2.11** “Federal Interest” means the federal government’s ownership interest in real or personal property, whether tangible or intangible, that is acquired or is improved, in whole or in part, with funds from the Award.
- 2.12** “Fiber Assets” means Dark Fiber owned by Grantor and funded in whole or in part with Award funds, specifically identified in Exhibit A, and for which Grantee has acquired an IRU through this Agreement.
- 2.13** “Grantee System” means the fiber optic system owned or controlled by Grantee on the Premise Side of the Interconnection Points as identified in Exhibit A, including all associated Equipment owned or controlled by Grantee on the Premise Side of the Interconnection Points and Equipment owned or controlled by Grantee on the Network Side.
- 2.14** “IRU” means the grant of an exclusive, irrevocable, indefeasible right to use specific strands of fiber for a terms of years.
- 2.15** “Maintenance” means work that must be performed upon or to Fiber Assets and Associated Property to ensure the continuity of an acceptable signal transmitted through the fibers (in conformance with the manufacturer’s specifications), or to ensure the safety and reliability of the Fiber Assets. Unless otherwise agreed in writing, Maintenance shall not include any work associated with either equipment owned by an entity other than Grantor, or equipment that sends, receives, interprets or modifies a signal or signal data.
- 2.16** “Network” means the Grantor fiber optic cable network (including the fiber optic cable, cable accessories, and related connections) in and around the cities of Urbana and Champaign, Illinois, of which the Fiber Assets are a part.
- 2.17** “Network Side” means the side of the Interconnection Point on which Grantor will provide Fiber Assets in accordance with this Agreement, including the splice point applicable thereto, as depicted in Exhibit A.
- 2.18** “NTIA” means the U.S. Department of Commerce’s National Telecommunications and Information Administration.
- 2.19** “Premise Side” means the side of the Interconnection Point on which Grantee or Third Party Equipment as designated by Grantee is connected to Fiber Assets, as depicted in Exhibit A.
- 2.20** “Project” means the project outlined in the Award Documentation.

2.21 “Route” means the physical path traversed by the Fiber Assets, as set forth in Exhibit A, accompanying maps, and related documents.

2.22 “State Award” shall mean the financial assistance award issued by the Illinois Department of Commerce and Economic Opportunity (DCEO) to Award Recipient for the Project, designated Award # 11-031002.

3. Term and Termination

This Agreement shall continue for a term of twenty (20) years from the Acceptance Date (as defined in Exhibit B), expiring at midnight on the 20th anniversary of that date (“Term”), unless terminated sooner under the provisions of this Agreement. Upon expiration of the initial Term, this Agreement may be renewed upon such terms and conditions as the Parties may agree.

3.1 Termination for Cause

This Agreement is subject to termination for cause by either Party in accordance with the procedures set forth in Section 7.

3.2 Grantee Termination of IRU

If at any time Grantee determines that any or all of the Fiber Assets have reached the end of their economically useful life, or Grantee otherwise desires not to retain any or all of the Grantee rights under this Agreement, Grantee has the right to abandon the applicable Grantee rights by written 12 -month notice to Grantor. In such case, this Agreement shall terminate as to the portion abandoned, and Grantee shall not be entitled to a refund of any of the consideration paid.

4. Federal Interest in Fiber Assets

Pursuant to applicable BTOP and other federal requirements, the Parties acknowledge that the federal government retains an undivided equitable reversionary Federal Interest in physical and intangible assets that are directly or indirectly acquired or improved with BTOP funds. This includes the Network and Fiber Assets. As a result, the IRU granted by this Agreement is subject to such Federal Interest. If Grantee permits any other person to acquire an interest in the Fiber Assets, including, but not limited to persons that may finance the acquisition of this IRU, Grantee shall take all necessary steps to ensure that the Federal Interest is communicated to such persons and shall cause the Federal Interest to be duly recorded as part of any such transaction.

5. Grant and Acceptance of IRU

5.1 Grant of Right

Upon the “Commencement Date” (namely, the date on which Grantee’s right to use the Fiber Assets commences, which shall be the Acceptance Date of the last Fiber Assets to be accepted under Exhibit B), Grantor grants and conveys to Customer for the Term the exclusive and indefeasible right of use of the Fiber Assets; and nonexclusive access to and use of the Interconnection Points and the tangible and intangible property needed for the use of the Fiber Assets and Associated Property.

5.2 Exclusivity

The IRU is exclusive to Grantee. Grantor shall not grant additional IRUs or otherwise convey use of the Fiber Assets in question to any person or entity other than Grantee during the Term of this Agreement.

5.3 Private Network Expansion Policy

Grantee agrees to abide by Grantor’s Private Network Expansion Policy, as it currently exists (Exhibit D), and as it may be amended from time to time in the future.

5.4 Title

Grantor shall retain legal title in the Fiber Assets throughout the duration of the IRU, and nothing in this Agreement shall convey any legal title to real or personal property, nor shall it create any security interest, except for the Federal Interest addressed in Section 4. Grantee shall, however, have a beneficial and equitable interest in the Fiber Assets during the Term of this Agreement.

5.5 Fiber Specifications, Delivery and Acceptance, and Costs

5.5.1 Fiber Specifications

Attached as Exhibit B are specifications that prescribe the minimum standards that Fiber Assets must meet. Grantor may modify these specifications from time to time for technological, operational, or business reasons, but Grantor may not require Grantee, without its consent, to accept a reduction or increase in the quantity of Fiber Assets granted pursuant to this Agreement, a reduction of the amount of transmission capacity available on such Fiber Assets, the relocation of the beginning or ending point of any route, the loss of the availability of any Interconnection Points, or the inability to use the full number of Fiber Assets granted, except during emergencies.

5.5.2 Installation; Construction

Grantor shall perform such work, if any, at its expense, as may be required for placement and provision of Fiber Assets on or in the Route described in Exhibit A. Grantor will construct the Network to the Interconnection Points as designated in Exhibit A, in accordance with the parameters, criteria, work and acceptance testing schedules set forth in Exhibit B.

5.5.3 Delivery and Acceptance

Delivery of the Fiber Assets shall be deemed to occur on the Acceptance Date, as determined in the manner set forth in Exhibit B.

5.5.4 Costs

Grantor shall be responsible for its own costs that may be incurred with respect to the installation, construction, and testing of the Fiber Assets and the costs of obtaining the Authorizations for which it is responsible under this Agreement. Grantee shall be responsible for the costs that may be incurred with respect to the initial and any subsequent splicing of the Fiber Assets at the Interconnection Points specified in Exhibit A, which shall be performed solely by Grantor's personnel or agents, and for all other costs associated with Grantee's use of the Fiber Assets, including the equipment necessary to light the fibers and the Authorizations for which it is responsible under this Agreement.

5.6 Grantee Use

Subject to section 5.6.1, Grantee may use the Fiber Assets and the Associated Property as granted under this Agreement for any lawful purpose, as if Grantee were the absolute owner thereof, including the exclusive right to use the Fiber Assets in the conduct of Grantee's business and as permitted by this Agreement, *provided*, that Grantee shall not permit or provide for use of Fiber Assets by any other party without the prior written consent of Grantor.

5.6.1 UC2B Policy Committee Resolutions and Statements

Grantee's use of Fiber Assets is subject to, and Grantee agrees to abide by, any and all resolutions and published statements of the UC2B Policy Committee, or its successor, concerning use of the Network by IRU holders and other entities, including the Policy Statement attached in current form as Exhibit E. Grantor shall promptly notify Grantee in the event of a substantive amendment or addition to such resolutions or statements.

5.7 Access

5.7.1 Access by Grantee

Grantor shall allow Grantee's representatives reasonable direct ingress and egress to Grantor's property on which Grantor has placed Fiber Assets and Associated Property, in connection with this Agreement, to facilitate the purposes of this Agreement, and to permit Grantee to be on Grantor's premises at such times as may be required to install, test and repair Grantee's equipment, or to effect a cure of Grantor's breach. Grantee personnel and its agents shall, while on the premises of Grantor, comply with all industry standard rules and regulations, and other requirements communicated to Grantee by Grantor including security requirements and, where required by government regulations as disclosed by Grantor, receipt of satisfactory governmental clearances.

5.7.2 Access by Grantor

On reasonable request to, notice to and consent of Grantee as to a mutually acceptable time, which shall not be unreasonably withheld, conditioned or delayed, Grantor shall be permitted reasonable access to Fiber Assets on the property of Grantee for the sole purpose of fiber testing and repair in connection with an outage of the Network. Grantor personnel and its agents shall, while on the premises of Grantee, comply with all industry standard rules and regulations, and other regulations communicated to Grantor by Grantee including security requirements and, where required by government regulations as disclosed by Grantee, receipt of satisfactory governmental clearances.

5.8 Sale or Abandonment of Fiber Assets

In the event that Grantor sells the Fiber Assets prior to the expiration of the Term, Grantee's right to use the Fiber Assets during the Term shall not be affected, and any such sale shall explicitly be made subject to the IRU granted by this Agreement. Should Grantor decide to abandon the Fiber Assets prior to the expiration of the Term, it shall reasonably cooperate with Grantee to ensure that Grantee's rights under this Agreement are preserved to the maximum extent possible.

5.9 Authorizations

Grantor shall be responsible for acquiring and maintaining at its expense all applicable Authorizations relating to the physical construction, operation, and maintenance of the Fiber Assets, but Grantor shall not be responsible for acquiring or maintaining Authorizations relating to the services provided through the use of the Fiber Assets, which shall remain the sole responsibility of the entity providing such services.

5.10 Compliance With Applicable Laws

The Parties shall comply with all applicable laws, regulations, rules, orders and other legal requirements in its performance of this Agreement.

5.11 Removal

Promptly after the expiration or earlier termination of the IRU, or after the relocation of a portion of the Route, Grantee shall cause the removal of all electronics, equipment, and other property related to the operation of such Fiber Assets, whether such equipment is owned and operated by Grantee, Vendor(s), or Customer(s), under Grantor's reasonable supervision. If Grantee shall not have removed all such electronics, equipment, or other property within a commercially reasonable period, not to exceed sixty (60) days, Grantor shall have the right, but not the obligation, to remove such electronics, equipment or other property, and shall then use reasonable practices to store and otherwise maintain such property on Grantee's behalf until it may be claimed by Grantee, but Grantor shall have no obligation to store and maintain such property for a period longer than sixty (60) days from removal, after which period Grantor may dispose of such property in any manner whatsoever. Grantee shall reimburse Grantor for any and all reasonable costs and expenses incurred in removing and storing such electronics, equipment or other property. Notwithstanding the foregoing, Grantor shall have a possessory lien on Grantee property which is attached to Fiber Assets, to the extent of any unpaid money due Grantor at the time of a termination or expiration of the IRU.

5.12 Compensation

Grantee shall compensate Grantor in the manner set forth in Exhibit C for the benefits that Grantee receives under this Agreement. Specifically, Grantee shall pay to Grantor the "Use Charge" set forth in Exhibit C in connection with Grantee's use of the Fiber Assets and Associated Property, payable in two equal installments with the first installment due and payable upon execution of this Agreement and the second installment due and payable upon the Acceptance Date. In addition, Grantee shall pay to Grantor a one-time "Provisioning Charge" set forth in Exhibit C, in connection with work performed by Grantor to enable Grantee's use of Fiber Assets, and Grantee shall pay to Grantor a "Splicing Charge" in connection with initial splicing work performed by Grantor.

6.0 Maintenance and Operations

6.1 Maintenance of Fiber Assets

The obligations of the Parties concerning Maintenance of Fiber Assets shall be as set forth in a separate Maintenance agreement, the execution of which by the Parties shall be a condition precedent to the operation of this Agreement.

6.2 No Grantor Responsibility for Use of Fiber Assets

Unless otherwise agreed by the Parties, Grantor shall have no responsibility for the operation, activation, or transmission of information or data through the Fiber Assets. The Parties understand that activation and ongoing operation of the Fiber Assets shall be undertaken by Grantee, Vendor, Customer(s), or other entities in a manner that complies with all legal requirements and is not in conflict with any provision of this Agreement.

7.0 Remedies

7.1 Default and Cure

A Default under this Agreement shall occur if (a) a Party fails to perform, in any material respect, any of its obligations set forth in this Agreement, (b) such failure is not excused by any provision of this Agreement, and (c) such failure continues un-remedied for a period of twenty-eight (28) days following receipt of written notice from the non-breaching Party. If the breach by its nature cannot be cured within twenty-eight (28) days and the breaching Party within that time has commenced its cure, there shall be no Default as long as the Party diligently continues such cure to completion.

7.2 Remedies

Upon the occurrence of a Default, the non-breaching Party shall have the right, subject to the express limitations contained in this Agreement, to terminate this Agreement, including the IRU for which it provides, and to pursue any and all available legal or equitable remedies against the defaulting Party. The non-breaching Party may pursue such remedies simultaneously or consecutively, at its discretion.

8.0 Availability of Grant Funds

This Agreement and IRU are contingent upon NTIA's and DCEO's payment of the full amount of the Award and State Award with respect to Grantor's Fiber Assets. If NTIA or DCEO fails to make such payments, Grantor shall have the right to rescind this Agreement.

9.0 Confidentiality

9.1 In General.

If either Party provides or has provided confidential or proprietary information ("Confidential Information") designated as such to the other Party, the receiving Party shall hold such information in confidence and shall afford it the same care and protection that it affords to its own confidential and proprietary information (which in any case shall be not less than reasonable care) to avoid disclosure to or unauthorized use by any third party, except as otherwise provided below. This Agreement and its terms shall not be deemed the Confidential Information of both Parties. All Confidential Information, unless otherwise specified in writing, shall remain the property of the disclosing Party and shall be used by the receiving Party only for the intended purposes set forth in this Agreement. Except as otherwise required by law, after the receiving Party's need for Confidential Information has expired, or upon the reasonable request of the disclosing Party, or promptly following the termination or expiration of this Agreement, the receiving Party shall destroy or return to the disclosing Party all Confidential

Information, including all copies of such information, and all notes, summaries, or other writings reflecting Confidential Information. The receiving Party shall not reproduce Confidential Information, except to the extent reasonably necessary to perform under this Agreement, or as otherwise may be permitted in writing by the disclosing Party.

9.2 Exceptions

The foregoing provisions of this section shall not apply to (i) any required disclosures to the NTIA or other government authority, (ii) disclosures required under the Freedom of Information Act and applicable state or local government open records laws, (iii) any Confidential Information or any provisions of this Agreement which becomes publicly available, other than through the Party claiming this exception, or is required to be disclosed by law, (iv) Confidential Information that is independently developed by the receiving Party without breach of any obligation of confidentiality; (v) Confidential Information that becomes available to the Party claiming this exception without restriction from an unrelated third party, or becomes relevant to the settlement of any dispute or enforcement or defense of either Party's rights under this Agreement, provided that appropriate protective measures shall be taken to preserve the confidentiality of such Confidential Information to the extent permissible in accordance with such settlement or enforcement process; (vi) disclosures of this Agreement to any proposed permitted assignee provided that each such proposed assignee agrees to be bound by confidentiality obligations no less stringent than those set forth herein; or (vii) disclosures by either Party of the physical route of Fiber Assets for marketing and sales-related purposes.

9.3 Intellectual Property

Nothing in this Agreement shall be construed as a grant of any right or license under any copyrights, inventions or patents now or later owned or controlled by Grantee or Grantor, and nothing in this Agreement shall be construed as granting any right, title or interest in the other Party's trademarks, trade names, service marks or other intellectual property rights. The Parties agree not to use the trademarks, trade names, or service marks of the other party without prior written permission.

9.4 Survival

The confidentiality provisions in this section shall survive expiration or termination of this Agreement.

10.0 Miscellaneous

10.1 Assignment

Grantee shall not assign its rights in this Agreement without the prior written consent of Grantor.. Nothing in this Agreement shall limit Grantor's right to assign its rights. In the event of an assignment by either Party, the assignee must assume all of the rights and obligations of the assigning Party.

10.2 Notices

All notices, demands and requests required or permitted to be given under the provisions of this Agreement shall be (a) in writing, (b) delivered by facsimile transmission with confirmation of delivery, electronic mail with confirmation of delivery receipt, or sent by overnight commercial delivery service or certified mail, return receipt requested. Notice shall be deemed to have been given on the date of the transmission and receipt of facsimile or electronic mail transmissions, or the delivery date set forth in the records of the delivery service or on the return receipt when addressed as follows:

If to Grantor

Contact: City Manager
Mailing Address: 102 N. Neil Street, Champaign, IL 61820
Phone: (217) 403-8710
Fax: (217) 403-8725
Email:

With a copy to:

If to Grantee:

Contact:
Mailing Address:
Phone:
Fax:
Email:

With a copy to:

or to any such other persons or addresses as the Parties may from time to time designate in a writing delivered in accordance with this Section.

10.3 Indemnification

To the extent permitted by law, each Party, on behalf of itself and its affiliates, directors, officers, employees, agents, successors, and assigns (“Indemnitor”) agrees to indemnify, defend, protect and hold the other Party and its directors, officers, directors, employees, agents, successors, and assigns (“Indemnified Persons”) harmless from and against any liability arising out of any claims, suits, actions, damages, claims, losses, fines, judgments, costs and expenses (including reasonable attorneys’, accountants’, experts’ fees) of any kind or character (collectively “Claims”) incurred by any Indemnified Persons (a) because of the death of any person, or any injuries or damage received or sustained by any persons or property, which in whole or in part arise on account of the negligent acts or omissions of the Indemnitor in the performance or non-performance of its obligations or exercise of its rights under this Agreement, including any material violation by Indemnitor of any law or permit applicable thereto; (b) under the Workers’

Compensation laws asserted by any other person providing goods or services for or on behalf of any of the foregoing in connection with this Agreement; or (c) arising out of, caused by, related to, or based upon, a contractual or other relationship between such claiming party and the Indemnitor, as it relates to Fiber Assets.

10.3.1 Additional Indemnity by Grantee

Additionally, Grantee agrees to indemnify, defend, protect and hold Grantor and its directors, officers, directors, employees, agents, successors, and assigns harmless from any Claims arising out of or resulting (a) from use or operation of the Fiber Assets by Grantee or its agents, or (b) from the provision or interruption of any connectivity, services, or content through the Fiber Assets, or (c) from the use of the Fiber Assets by Grantee's or its agents' Customers.

10.3.2 Exceptions

An Indemnitor's obligations under this section shall not apply to any Claims to the extent caused by the negligence, intentional acts or omissions, willful misconduct, or reckless action by a person claiming indemnification.

10.4 LIMITATION OF LIABILITY.

EXCEPT AS OTHERWISE EXPRESSLY PROVIDED IN THIS AGREEMENT, NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR ANY SPECIAL, INCIDENTAL, INDIRECT, PUNITIVE OR CONSEQUENTIAL COSTS, LIABILITIES OR DAMAGES, WHETHER FORESEEABLE OR NOT, INCLUDING WITHOUT LIMITATION AS APPLICABLE, ECONOMIC LOSS OR LOST BUSINESS OR PROFITS, INTERRUPTIONS OF SERVICE, OR ANY DELAY, ERROR OR LOSS OF DATA OR INFORMATION, ARISING IN ANY MANNER OUT OF, OR IN CONNECTION WITH, THIS AGREEMENT AND GRANTEE'S PERFORMANCE OR NONPERFORMANCE OF ITS OBLIGATIONS UNDER THIS AGREEMENT, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT OR TORT (INCLUDING STRICT LIABILITY), ALL CLAIMS FOR WHICH ARE HEREBY SPECIFICALLY WAIVED BY GRANTOR.

10.5 Representations and Warranties; Disclaimers

By execution of this Agreement, each Party represents and warrants to the other that: (a) the Party is duly organized, validly existing and in good standing under the Laws of the jurisdiction of its organization; (b) the Party has full right and authority to enter into and perform this Agreement in accordance with the terms hereof and thereof; (c) the Party's execution, delivery, and performance of this Agreement will not conflict with, violate or result in a breach of (i) any law, regulation, order, writ, injunction, decree, determination or award of any governmental authority or any arbitrator, applicable to such Party, (ii) any of the terms, conditions or provisions of its charter, bylaws, or other governing documents of such Party, (iii) any material agreement to which it is a party, or (iv) any

instrument to which such Party is or may be bound or to which any of its material properties or assets is subject; (d) the Party's execution, delivery and performance of this Agreement has been duly authorized by all requisite corporate action; (e) that the signatories for such Party are authorized to sign this Agreement; (f) there are no actions, suits, proceedings or investigations pending, or to the knowledge of the Party, threatened against or affecting the Party of any of its properties, assets or businesses in any court or before or by any governmental authority that could, if adversely determined, reasonably be expected to have a material adverse effect on the Party's ability to perform its obligations under this Agreement; (g) the Party has not received any currently effective notice of any material default; and (h) the Party has not previously been and is not currently, debarred, suspended, or proposed for debarment, declared ineligible, voluntarily excluded from transactions by any federal or state department or agency, or subject to any inquiry, investigation, or proceeding regarding the foregoing.

10.6 General Disclaimer

GENERAL DISCLAIMER. EXCEPT AS SPECIFICALLY SET FORTH IN THIS AGREEMENT, GRANTOR MAKES NO WARRANTY, WHETHER EXPRESS OR IMPLIED, AS TO THE MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF ANY OF ITS FIBERS, OR ANY SERVICE PROVIDED HEREUNDER OR DESCRIBED HEREIN, OR AS TO ANY OTHER MATTER, ALL OF WHICH ARE HEREBY EXPRESSLY EXCLUDED AND DISCLAIMED.

10.7 Taxes

Each Party shall be responsible for paying its own federal, state or local sales, use, excise, value-added, personal property, income or other taxes or charges assessed on or levied against any transaction or event arising from the performance of this Agreement.

10.8 Insurance

During the term of this Agreement and IRU, each Party shall maintain a policy of comprehensive liability insurance, including public liability, bodily injury, and property damage, written by a company licensed to do business in the State of Illinois, covering use and activity contemplated by this Agreement with combined single limits of no less than One Million Dollars (\$1,000,000.00) per occurrence and Two Million Dollars (\$2,000,000.00) aggregate, with Five Million Dollars (\$5,000,000.00) umbrella coverage. Each Party shall name the other Party, including its officers, employees, and agents, as Additional Insureds for the said purpose and use of this Agreement. Each Party shall also maintain Workers' Compensation insurance to meet the requirements of the Workers' Compensation laws of Illinois where applicable. Certificates of Insurance evidencing such insurance coverage shall be provided to either Party upon the other Party's request.

10.9 Relationship of the Parties

10.9.1 No Joint Venture

This Agreement is not intended to create, nor shall it be construed to create, any partnership, joint venture, or employment relationship between Grantor and Grantee, and neither Party shall be liable for the payment or performance of any debt, obligations, or liabilities of the other Party, unless expressly assumed in writing. Each Party covenants that it shall not act in a manner that may be construed to be inconsistent with the foregoing nor otherwise act or purport to act on behalf of the other Party except as may be expressly authorized in writing by the other Party. Grantor and Grantee, in performing any of their obligations hereunder, shall be independent contractors or independent Parties and shall discharge their contractual obligations at their own risk subject, however, to the terms and conditions hereof.

10.9.2 No Subrecipient

This Agreement is not intended, to create nor shall it be construed to create, a subrecipient relationship between Grantor and Grantee, as it relates to the Award or State Award.

10.10 Force Majeure

10.10.1 Force Majeure Events

Notwithstanding any other provision of this Agreement, neither Grantor nor Grantee shall be liable for any failure or delay in performing its obligations, or for any loss or damage, resulting from any event or circumstance beyond the reasonable control of the Party, including but not limited to an earthquake, hurricane, fire, flood, lightning, sinkhole or other forces of nature, acts of war, terrorism or civil unrest, strikes, lockouts or other labor unrest, or legal order, government action or application of laws, regulations or codes (“Force Majeure Event”), *provided* that the obligation of the Grantee to pay the Grantor as provided in this Agreement shall be not be diminished by a Force Majeure Event.

10.10.2 Response to Force Majeure

A Party whose performance is impacted by a Force Majeure Event shall provide reasonable notice to the other Party and shall make commercially reasonable efforts to minimize the impact of the Force Majeure Event on its performance.

10.10.3 Suspension Pending Force Majeure

The deadline by when a Party must perform an obligation under this Agreement, other than payment of money, shall be postponed by the period of time by which the Party’s ability to perform that obligation is materially prevented or interfered with by a Force Majeure Event.

10.11 Applicable Law

This Agreement will be governed and construed in accordance with the laws of the State of Illinois, without regard to any conflicts of law provisions that would affix jurisdiction in another State, and any dispute arising out of this Agreement shall be filed in a court of competent jurisdiction in Champaign County, Illinois.

10.12 Headings

Headings and captions of this Agreement’s sections and paragraphs are only for convenience and reference. These headings and captions shall not affect or modify this Agreement’s terms or be used to interpret or assist in the construction of this Agreement.

10.13 Waiver

Any right or remedy provided for in this Agreement shall not preclude the exercise of any other right or remedy under this Agreement or under any provision of law, nor shall any action taken or failure to take action in the exercise of any right or remedy be deemed a waiver of any other rights or remedies at the time.

10.14 Entire Agreement; Amendments

This Agreement and the Exhibits constitute the entire agreement between the Parties with respect to the subject matter hereof, and supersede all previous understandings, commitments or representations, whether oral or written, concerning the subject matter. Each Party acknowledges that the other Party has not made any representations other than those that are contained herein. This Agreement may not be amended or modified in any way except by a writing signed by the authorized representatives of the Parties.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the day and year first above written.

Grantor:

By: _____

Name: _____

Title: _____

Date: _____

[Grantee]

By: _____

Name: _____

Title: _____

Date: _____

EXHIBIT A

IDENTIFICATION OF FIBER ASSETS

Grantor grants to Grantee, and Grantee accepts from Grantor, an IRU as described in Section 5 of this Agreement of Fiber Assets specifically identified in this Exhibit. Updates to Fiber Asset identification information will be provided by Grantor to Grantee within ninety (90) days of completion of any material change, including relocation, affecting the Fiber Assets. If Grantee desires additional information concerning the Fiber Assets or route, the Parties shall cooperate to accommodate such request.

1. Route and Quantity

The fiber optic strands and associated property which is the subject of this IRU includes approximately ___ strand-miles of fiber (route miles x the number of fiber strands) located within the Route ("Fiber Assets"). The actual length of the Route, used for invoicing purposes, will be determined and via an Optical Time Domain Reflectometer (OTDR) test, and provided to Grantee prior to the Acceptance Date.

1.1 Route Description

The Route shall be as follows:

[plain English description of the Route]

[reference diagram of Network identifying Fiber Assets with identification of Interconnection Points, if possible / appropriate]

Index of buildings (if any):

[]

1.2 Fiber Strand Identification

[index / identification of strands / buffer tube or ribbon colors]

2. Interconnection Points

{Diagram showing interconnection points, describing Network Side and Premises Side, per definitions:}

(Network Side. The side of the Interconnection Point on which Grantor will provide Customer Fibers in accordance with this Agreement, including the splice point applicable thereto, as depicted in the diagram set forth in Exhibit A.)

(Premise Side. The side of the Interconnection Point on which Customer or Third Party Equipment as designated by Customer is connected to Customer Fibers, as depicted in the diagram set forth in Exhibit A.)

EXHIBIT B

FIBER SPECIFICATIONS, TESTING AND ACCEPTANCE

1.0 Fiber Optic Cable Parameters

Fiber optic cable parameters (“Parameters”) include specifications and engineering and design requirements for the Network, including Fiber Assets, Associated Property and related connections. All Parameters shall remain consistent with then-current industry standards for the type of fiber optic cable and Associated Property comprising the Network, including, but not limited to, the splicing and testing parameters set forth herein. Either Party may provide to the other Party a request for any material modifications to these specifications as may be necessary or appropriate in any particular instance for the other Party’s approval, which shall not be unreasonably withheld, conditioned or delayed.

1.1 Splicing Parameters

The cable will be stripped back until the bare fiber is exposed. Caution will be used to prevent the fibers from being damaged during this process. Each fiber will be cleaved to ensure that a near-perfect 90-degree angle, +1 degree, is achieved. Splicing personnel will adjust their cleaving tools regularly to allow for maximum productivity.

The fiber ends will then be cleaned and fused together.

After the fibers are fused together, they will be physically secured in a splice organizer tray. The buffer tubes and splice trays will be clearly labeled to facilitate identifying fibers by number, color assignments, and direction. The splice organizer trays will be stacked together and secured to the internal frame of the splice enclosure.

The cable strength members and the inner sheaths will be secured to the internal frame of the splice closure. The completed splice closure will be sealed to ensure that the closure is water-tight.

The grounding will be completed by attaching the closure ground lugs to the specified grounding scheme.

Once all splices in a span are complete, bi-directional OTDR traces will be taken at 1550 nm, the results of which will be recorded and which will be made available to Grantee upon request.

1.2 Testing Parameters

During mechanical and environmental testing, any evidence of cracking, splitting or other failure of the fiber optic sheath components when examined under 5X magnification will be assumed to result in failure of the proposed test requirements. In addition, no fiber shall lose optical continuity because of the test.

The maximum splice loss average per fiber span is 0.2 dB. All traces shall be reviewed to ensure this specification is met.

When all splicing and loss measurements have been completed on a span (a cable system between two sites), connector-to-connector measurements will be made. These tests result in a characterization of entire span-loss figures. This data will be recorded, retained, and a copy thereof delivered to Grantee on CD.

2. Acceptance

2.1 Acceptance Test

Grantor shall conduct a test (“Acceptance Test”) of the Fiber Assets to determine that the Fiber Assets meet or exceed the Parameters. Grantee shall be notified not less than five (5) days in advance of the Acceptance Test. If the Fiber Assets fail to satisfy the Parameters, Grantor shall use reasonable efforts to promptly correct any such failure, whereupon Grantor shall conduct another Acceptance Test of the Fiber Assets in accordance with the Parameters. Grantor shall diligently proceed with Acceptance Tests and correction until the tests of the Fiber Assets demonstrate that they meet the Parameters. Thereupon, Grantor shall deliver to Grantee the written test reports demonstrating that the Fiber Assets meet the Parameters. The procedure set forth in this paragraph shall be repeated as necessary until Grantee accepts or is deemed to accept, pursuant to the following paragraph, all Fiber Assets.

2.2 Acceptance by Grantee

Grantee shall be deemed to have accepted the Fiber Assets on the date on which the following occur with respect to the Fiber Assets, said date referred to as the “**Acceptance Date**”:

- i. satisfaction of the Acceptance Test for the Fiber Assets and failure of Customer to object to the results within ten (10) days of the date of receipt of the written test reports; or
- ii. written acknowledgment by Customer of acceptance of the Fiber Assets.

EXHIBIT C
COMPENSATION

In consideration of Grantor's obligations set forth in this Agreement, Grantee agrees the pay to Grantor compensation as set forth in this Exhibit.

1. Amount

1.1 IRU Use Charge

Grantee will pay to Grantor a Use Charge in the amount of \$_____, payable in two equal installments of \$_____. The first Use Charge installment payment shall be due and payable upon the date this Agreement is first executed by both Parties. The second Use Charge installment payment shall be due and payable upon the Acceptance Date.

1.2 Non-recurring Provisioning Charge

Grantee will pay to Grantor a one-time provisioning charge of \$_____ which payment shall be due within thirty (30) days of Grantee's receipt of an invoice from Grantor.

1.3 Splicing Charge

Grantee will pay Grantor for the costs incurred with respect to the initial and any subsequently requested splicing of Fiber Assets at Grantee Interconnection Points, which splicing costs shall be billed to Grantee at Grantor's cost plus ten percent (10%), which payment shall be due within thirty (30) days of Grantee's receipt of an invoice from Grantor.

2.0 Invoice and Payment Terms

Payment of each invoice is due within twenty-eight (28) days of Grantee's receipt of such invoice.

2.1 Invoicing and Payment Addresses

Grantor will send invoices payable by Grantee to the following address:

[Grantee Accounts Payable]

Grantee will send payments due Grantor to the following address:

[Grantor Accounts Receivable]

2.2 Late Payments

If payment is not received by Grantor from Grantee within fifteen (15) days of when due and payable under this Agreement, then a late fee of the lesser of (i) five percent (5%) per month or (ii) the maximum percentage permitted by law may be assessed on the delinquent balance not paid by the due date. Any such late fee shall be paid within thirty (30) days of receipt of an invoice therefor and shall cover the period commencing with the day on which such payment was due and ending with the day on which such payment is actually received, both inclusive. The payment of any such late fee shall not be deemed an extension of time for payment or a waiver of any failure to remit any other payment due under this Agreement as and when such payment is due. Notwithstanding the foregoing, failure by Grantee to pay an invoice within fifteen (15) days of when due and payable under this Agreement shall be deemed a Default, in which case Grantor may pursue the remedies for breach set forth in Section 7 of this Agreement, in addition to any other rights and remedies available to Grantor under applicable law.

EXHIBIT D

[PRIVATE NETWORK EXPANSION POLICY]

EXHIBIT E

[UC2B POLICY STATEMENT / RESOLUTION]



Proposed Policy for Private Expansion of UC2B for Business Services

Several private entities have expressed interest in connecting new or existing lateral fiber infrastructure to UC2B backbone rings in order leverage those rings to provide fiber-based services to businesses.

As UC2B does not currently have a plan or funding for the expansion of fiber-to-the-premise to businesses located outside the grant-funded FTTP areas, the Policy Board should consider adopting policies that encourage private entities to invest their capital to extend the UC2B network by building additional lateral cables and serve more businesses.

This expansion should always be under certain conditions that promote an open-access network as well as minimize the operational overhead for UC2B and the local municipalities in managing additional infrastructure in their rights-of-way.

For the purposes of this discussion, a “lateral cable” will be defined as a fiber cable connecting to a UC2B backbone ring, or to an existing lateral cable and terminating in a manhole or handhole in the public right of way. By this definition “lateral cables” exist only in the city rights-of-way.

A “drop cable” is a cable that connects to a lateral cable in the city right-of-way in a manhole or hand hole and then goes primarily on private property or in a utility easement on private property to connect to a building. While a few feet of a drop cable may be in the city right-of-way it should be thought of as a cable that is located on private property.

There are locations where a UC2B ring cable, manhole and splice case are in the right-of-way in front of a location desiring UC2B service. In those instances, the drop cable would connect directly to the ring cable and there would be no lateral cable in that connection.

It is common for the general term “laterals” to be used to describe both “lateral cables” and “drop cables” – singularly or in combination. This narrative will attempt to make a clear distinction between the two where that distinction is relevant.

The suggested policy that follows would only apply to [new](#) lateral and drop cables connecting from a UC2B ring cable (or from an existing [UC2B](#) lateral fiber cable) that are built to commercial locations. Only the specific [new](#) lateral cable and drop cable

infrastructure being donated would be subject to the donation policy. (In some cases there could also be splice cases and handholes or manholes involved on the lateral cable in addition to the cables themselves.)

[This policy does not affect existing backbone or lateral fiber infrastructure that a provider may already have in place prior to signing IRU or donation agreements with UC2B. In the event that the organization donating the fiber and UC2B differ on the definition of some portion of that donor's infrastructure, both parties agree to make a good faith effort to come to a compromise that is acceptable to both parties.](#)

Any other fiber infrastructure that the donating entity may have would not be affected. Fiber that interconnects a provider's network to UC2B's network would not be affected. An ISP's main fiber connection to the UC2B network core would not be affected. That other fiber infrastructure would remain the sole property of the provider, who remains 100% responsible for its maintenance.

There are a series of core principles that the suggested policy promotes:

- A. All lateral fiber infrastructure in the cities' rights-of-way that connects to the UC2B network shall be operated as an open-access network by UC2B.
- B. The City of Urbana and the City of Champaign through their Public Works Departments and the University of Illinois through its Utilities department have expressed a strong preference for having all lateral fiber infrastructure in their rights-of-way that connects to UC2B fiber to be owned, managed and maintained by UC2B.

The fewer organizations that each city and the University have to track and coordinate with concerning infrastructure in their rights-of way, the less burden it will be on the cities and University. While the cities cannot limit who can build fiber infrastructure in its rights-of-way, UC2B can set consistent conditions that must be met before connecting private lateral fiber cables to UC2B fiber cables.

- C. UC2B should have total ownership and maintenance responsibility for all lateral fiber infrastructure in the local rights-of-way that connects to its fiber network.
- D. Assuming ownership and maintenance responsibility for the lateral fiber infrastructure that is "donated", should not put a financial strain on UC2B, but rather support UC2B's sustainability. Donating entities will pay recurring maintenance charges for the donated fiber, and UC2B will keep a small portion of the one-time funds paid. No lateral fiber donation in Champaign, Urbana or Savoy will be rejected because of its potential maintenance costs.

- E. Any donated lateral fiber infrastructure must be located within the city limits of the City of Urbana, the City of Champaign the Village of Savoy, or on the property of the University of Illinois. UC2B has no interest in directly maintaining any donated infrastructure outside of these areas. The value of the donated fiber infrastructure will be determined by the donating party and UC2B on a case-by-case basis and jointly agreed to in the donation agreement.

The elements of a policy for “donated” lateral fiber infrastructure in commercial areas:

1. Before an entity can connect its lateral fiber infrastructure to a UC2B backbone ring or to an existing lateral cable, that entity must first:
 - A.) Execute an IRU or lease agreement with UC2B for the UC2B backbone fiber ring to which the “donated” lateral fiber infrastructure will connect. Each UC2B ring desired must be leased in its entirety.
 - B.) .) Execute a donation agreement that details the physical location of the lateral fiber infrastructure being donated and the original cost of installing the donated lateral fiber infrastructure on a per lateral cable basis (with each of its associated drop cables.)
 - C.) Execute a fiber maintenance agreement for the UC2B ring fiber that is being leased, and also for the lateral fiber infrastructure being donated.
2. The fiber maintenance contract for the ring and donated lateral fiber infrastructure shall be at the then-current UC2B fiber maintenance rates. UC2B will incur all expenses for J.U.L.I.E. locates and fiber infrastructure repairs and routine maintenance for the donated lateral fiber infrastructure. Costs for relocating fiber infrastructure in the event of road construction or some other planned event are typically shared by the “users” of the fiber infrastructure on a prorated basis.
3. Any lateral fiber infrastructure that is donated to UC2B must be documented in full, be in excellent operational condition, be built to UC2B standards, and be clear of any ownership encumbrances. Manholes or conduits that are shared with multiple entities are not good candidates for UC2B ownership and maintenance. A lateral fiber cable that already has multiple owners is not a good candidate for UC2B ownership and maintenance. A lateral fiber cable that has more than 10% of its strands fail OTDR testing is not a good candidate for UC2B ownership and maintenance. All donated lateral fiber cables must be accompanied by individual end-to-end OTDR reports for each strand, which will be verified by UC2B before acceptance.
4. An entity donating lateral fiber infrastructure to UC2B will have exclusive rights to use half of the donated lateral fiber cable strands and half of the

associated donated drop cable strands via a \$1 dollar 20-year IRU. That IRU shall be renewable for multiple similar terms. The remaining strands of fiber in that infrastructure will be available for other entities to “buy into”.

5. The lateral fiber cable and the associated fiber drop cables attached to each lateral fiber cable will define each donated fiber segment. Entities wishing to lease dark fiber to a location served by a donated lateral cable and drop cable, must lease the entire fiber segment - the complete lateral fiber cable and all of the drop cables associated with that lateral cable.
6. The donated lateral fiber infrastructure must always provide at least 12 strands of fiber for the drop cable into a commercial building. If there are more than 3 potential tenants in a commercial building the fiber drop cable must have at least 4 strands of fiber per potential tenant up to a maximum of 48 strands. Lateral fiber cables must provide 4 strands for each potential commercial customer served by that lateral cable up to a maximum of 96 strands. Fiber cables that lack the desired number of strands are not good candidates for UC2B ownership and maintenance.
7. The first additional entity that elects to buy into “donated lateral infrastructure” will pay to UC2B a one-time fee equal to 55% of the original installation cost of that infrastructure segment as documented by the original entity at the time of donation and agreed to by UC2B in the donation agreement. UC2B shall then provide 50% of the original installation cost to the original entity that donated the lateral fiber infrastructure (retaining 5% for UC2B overhead.)
8. That first additional user (second total user) of the “donated lateral infrastructure” will be entitled to 2 fiber strands on each fiber drop cable served by the lateral cable. That first additional user (second total user) will also be entitled to 2 strands on the lateral fiber cable. This will allow that second user to connect multiple customers served by that lateral infrastructure by deploying a ringed network topology and bi-directional single-strand optics on the fiber strands.
9. That second user will enter into an IRU or lease agreement for UC2B ring fiber that connects to that lateral fiber cable (leasing complete UC2B rings at a time) at then-current rates, and will be provided with a \$1 dollar 20-year IRU for the lateral and drop cable fibers. Both leases shall be renewable for multiple similar terms.

10. That second user will enter into a fiber infrastructure maintenance agreement for the UC2B backbone ring being leased as well as for the lateral and drop cable fiber being leased at UC2B's then-current annual fiber maintenance rates. The original entity that donated the fiber will not receive any reduction in the rate of its fiber maintenance agreement should additional entities lease strands in the donated cables.
11. Should a second "additional" (third total) entity desire to use the donated lateral fiber infrastructure, they will pay to UC2B a one-time fee equal to 40% of the original installation cost of that infrastructure as documented by the original entity at the time of donation and agreed to by UC2B in the donation agreement.

UC2B shall then provide 15% of the original installation cost to the original entity that donated the fiber infrastructure and 15% of the original installation cost to the first additional entity that bought into that fiber infrastructure (retaining 10% for UC2B overhead.) At that point, the original entity that donated the fiber infrastructure to UC2B and the first entity that bought into the infrastructure will both be considered to have been "made whole" and will receive no additional compensation from any additional users of that fiber infrastructure. The second additional entity that invested will also not receive any compensation from any additional users of that lateral fiber infrastructure.

12. The third user of the "donated lateral infrastructure" will be entitled to 2 fiber strands on each fiber drop cable served by the lateral cable. That second additional user (third total user) will also be entitled to 2 strands on the lateral fiber. This will allow that third user to connect multiple customers served by that lateral infrastructure by deploying a ringed network topology and bi-directional single-strand optics on the fiber strands.
13. The third user will enter into an IRU or lease agreement for UC2B ring fiber at then-current rates, and will be provided with a \$1 dollar 20-year IRU agreement for the lateral fiber and the drop cable fiber. Those leases shall be renewable for multiple similar terms.
14. That third user will enter into a fiber infrastructure maintenance agreement for the UC2B backbone ring being leased as well as for the lateral and drop cable fiber being leased at UC2B's then-current annual maintenance rates. The original entity that donated the fiber, and the first entity that "bought into" the fiber will not receive any reduction in the rate of their fiber maintenance agreements as a result of this second entity "buying into" the donated lateral fiber infrastructure.

15. Once two additional entities have bought into a donated lateral fiber cable and its associated drop cables, UC2B shall be free to use the remaining fiber strands on the lateral cable and all of the associated drop cables to provide retail or wholesale services, which could include lambda-based services to accommodate additional entities that wish dedicated access to the locations served by the donated lateral fiber infrastructure. Unless it already has rights to use fiber strands on a lateral cable or drop cable. UC2B will never lease the last two strands of fiber on those cables, which will always leave UC2B in a position to offer lit services on an open-access basis, even if the fiber cables involved are “full”.
16. Should UC2B have funds and the need to do so, UC2B could be the first or second entity to “buy into” lateral and drop cables. Unless there have been two other entities buy into a lateral and it associated drop cable(s), UC2B can only use the additional strands on those donated cables for its own purposes by “buying into” them like any other provider.
17. All splicing at all times to the UC2B fiber backbone rings or to existing UC2B lateral cables will be performed by UC2B staff or contractors working for UC2B.
18. Before donating fiber infrastructure to UC2B, any splicing other than to the UC2B backbone ring or to an existing lateral cable will be performed by the entity donating the lateral fiber infrastructure. Once the lateral fiber infrastructure has been donated, UC2B staff or contractors working for UC2B will perform all splicing.
19. There are also groups of geographically-clustered businesses that are considering building their own lateral and drop cables in order to connect to UC2B. If they then donated that infrastructure to UC2B, it would be open to all entities to lease with no up-front costs.
20. This policy applies only to lateral fiber infrastructure serving commercial locations. It does not apply to any other fiber infrastructure that an entity may own and connect to UC2B’s fiber infrastructure. A policy covering dark fiber and residential locations can be created later if the need arises.

AGREEMENT TO MAINTAIN CERTAIN FIBER OPTIC ASSETS

THIS AGREEMENT TO MAINTAIN CERTAIN FIBER OPTIC ASSETS (“Maintenance Agreement” or “Agreement”) is entered into on ____, 2012 between the City of Champaign, Illinois, a municipal corporation acting as trustee on behalf of the Urbana-Champaign Big Broadband Consortium, an intergovernmental consortium of the University of Illinois Urbana-Champaign and the cities of Urbana and Champaign, Illinois, with offices at [address] (“Grantor”), and [NAME OF ENTITY], a [type of entity] organized under the laws of _____, with offices at [address] (“Grantee”), each a “Party” and together, the “Parties.”

RECITALS

1. Grantor owns or will own optical fiber network assets constituting a fiber optic network in and around the Urbana-Champaign area (“Network”);
2. The Parties have executed or will execute a separate agreement entitled “Agreement Granting Indefeasible Right to Use Optical Fiber Assets,” (“IRU Agreement”) by which Grantor has granted or will grant to Grantee an indefeasible right to use certain fiber optic strands (“Fiber Assets”) within the Network;
3. The execution of the IRU Agreement is a condition precedent to the operation of this Maintenance Agreement; and
4. Grantor desires to provide, and Grantee wishes to accept from Grantor, certain Maintenance services concerning Fiber Assets and Associated Property, for which Grantee will compensate Grantor in the manner set forth in this Maintenance Agreement.

NOW, THEREFORE, in consideration of the mutual promises set forth below, and for other good and valuable consideration, the adequacy and receipt of which are hereby acknowledged, Grantor and Grantee agree as follows:

1.0 Definitions

“Agreement” means this Agreement, any and all Exhibits and Attachments thereto, and any Addenda to which the Parties may agree from time to time.

“Associated Property” means the tangible and intangible property needed for the use of Fiber Assets, including, but not limited to, connecting points, support structures and all underlying rights, but expressly excluding any rights in any electronic or optronic equipment.

“Authorizations” means the permissions a Party must have to perform its obligations under this Agreement, which may include franchises; licenses; permits; zoning approvals; variances; exemptions; grants of authority to use public rights of way or facilities; agreements to make attachments to poles, ducts, conduits, towers, buildings, rooftops, manholes, and the like; and any other approval of a governmental authority or third persons with respect to (i) the construction, installation, repair, maintenance, operation or use of tangible or intangible property, as the case may be, or (ii) any requirement by a governmental authority for the engagement in a business or enterprise.

“Authorization Fees” means all permit, right-of-way, easement, pole attachment, franchise, encroachment, or license fee, charge or assessment of any kind applicable to the placement and maintenance of Fiber Assets and Associated Property and appurtenances, whether imposed by a governmental authority or a private entity.

“Dark Fiber” means fiber optic cable strands without electronic and/or optronic equipment and which is not "lit" or activated.

“Effective Date” means the date on which this agreement was countersigned and executed by the second Party.

“Fiber Assets” means specific Dark Fiber strands which are the subject of the IRU Agreement, as defined in the IRU Agreement.

“Grantee System” means the fiber optic system owned or controlled by Grantee on the Premise Side of the Interconnection Points, including all associated Equipment owned or controlled by Grantee on the Premise Side of the Interconnection Points and Equipment owned or controlled by Grantee on the Network Side.

“Interconnection Point” means a point on one side of which is Grantee’s responsibility for ensuring its connections and paying for and installing its Equipment, termed Premise Side, and the other side of which point is the Network Side, for which Grantor is responsible as set forth in this Agreement.

“IRU Agreement” means that agreement between the Parties entitled “Agreement Granting Indefeasible Right to Use Optical Fiber Assets,” by which Grantor grants to Grantee an indefeasible right to use Fiber Assets.

“JULIE” means the Illinois Joint Utility Locating Information for Excavators service, which provides for a method of notifying owners of underground infrastructure of pending new construction in the area of that infrastructure, so that the existing infrastructure can be located and marked.

“Maintenance” means work that must be performed upon or to Fiber Assets and Associated Property to ensure the continuity of an acceptable signal transmitted through the fibers (in conformance with the manufacturer’s specifications), or to ensure the safety and reliability of the Fiber Assets. Unless otherwise agreed in writing, Maintenance shall not include any work associated with either equipment owned by an entity other than Grantor, or equipment that sends, receives, interprets or modifies a signal or signal data.

“Network” means the Grantor fiber optic cable network (including the fiber optic cable, cable accessories, and related connections) in and around the cities of Urbana and Champaign, Illinois, of which the Fiber Assets are a part.

“Network Side” means the side of the Interconnection Point on which Grantor will provide Fiber Assets in accordance with this Maintenance Agreement, including the splice point applicable thereto, as depicted in Exhibit A of the IRU Agreement.

“Parameters” means the specifications, engineering and design requirements for the Network, including Fiber Assets, Associated Property and related connections, as set forth in Exhibit B of the IRU Agreement.

“Premise Side” means the side of the Interconnection Point on which Grantee or Third Party Equipment as designated by Grantee is connected to Fiber Assets, as depicted in Exhibit A of the IRU Agreement.

2.0 Term and Termination

This Agreement shall continue for a term of twenty (20) years from the Effective Date (as defined in expiring at midnight on the twentieth anniversary of that date (“Term”), unless terminated sooner under the provisions of this Agreement. Upon expiration of the Term, this Agreement may be renewed upon such terms and conditions as the Parties may agree.

2.1 Termination for Cause

This Agreement is subject to termination for cause by either Party in accordance with the procedures in case of default set forth in Section 9 of this Agreement.

2.2 Termination of IRU

This Agreement shall be deemed terminated upon the termination or expiration of the IRU Agreement.

3.0 Maintenance Obligations – Generally

3.1 Grantor shall perform Maintenance on Fiber Assets and Associated Property throughout the Term of this Agreement, and shall keep and maintain the Fiber Assets and Associated Property in good working order for the duration of the

Term, consistent with commercial standards and manufacturer specifications and the Parameters, and shall otherwise maintain the Fiber Assets and Associated Property in a manner that will permit Grantee's uninterrupted use, in accordance with the terms and conditions of the IRU Agreement. All Maintenance on or to Fiber Assets and Associated Property shall be performed by Grantor or Grantor's agent.

- 3.2 Unless otherwise agreed by the Parties, Grantee will be solely responsible for providing and paying for any and all other maintenance, in particular the maintenance of electronic, optronic and other equipment, materials and facilities that Grantee uses in connection with the operation of the Fiber Assets. To ensure that such other maintenance does not adversely affect the Fiber Assets and Associated Property, Grantee shall perform such maintenance in a good and workmanlike manner, using good engineering practices and in accordance with current industry standards and applicable law. All maintenance on the Grantee System shall remain the sole responsibility of Grantee.
- 3.3 Grantor shall be responsible for maintaining an active membership in JULIE and shall respond in a timely manner to all requests to locate and mark its underground infrastructure and the Fiber Assets covered by this agreement.
- 3.4 Grantor shall be responsible for acquiring and maintaining at its expense all applicable Authorizations relating to the Maintenance of Fiber Assets.

4.0 Access

On reasonable request to, notice to and consent of Grantee as to a mutually acceptable time, which shall not be unreasonably withheld, conditioned or delayed, Grantor shall be permitted reasonable access to Fiber Assets on the property of Grantee for the sole purpose of fiber testing and repair in connection with an outage of the Network. Grantor personnel and its agents shall, while on the premises of Grantee, comply with all industry standard rules and regulations, and other regulations communicated to Grantor by Grantee including security requirements and, where required by government regulations as disclosed by Grantee, receipt of satisfactory governmental clearances.

5.0 Maintenance Contact

Grantor shall provide the means, including but not limited to a phone number, to receive and process maintenance-related communications from Grantee on a 24x7x365 basis. Grantor shall designate a single point of contact, who shall be a human person, and who shall have primary responsibility for addressing maintenance-related issues concerning Fiber Assets and Associated Property.

Grantor Maintenance Primary Point of Contact:

24x7 contact number: _____

Name: _____

Title: _____

Phone number: _____

Email address: _____

In addition, each Party shall provide the other Party an escalation list setting forth the names, email addresses and telephone numbers of at least three (3) individuals, in the order that the other Party shall attempt to contact them, for the purpose of receiving Maintenance-related notifications.

Each Party shall promptly inform the other Party of any changes or updates to the contact information required under this subsection.

6.0 Maintenance Activities

6.1 Scheduled Maintenance

Grantor shall perform scheduled Maintenance in accordance with Grantor's then-current preventive maintenance procedures, which shall not substantially deviate from standard industry practice. Generally, this work should be scheduled after midnight and before 6:00 a.m. local time. Grantor shall notify Grantee at least five (5) business days prior to the date in connection with any scheduled Maintenance that may reasonably be expected to produce any signal discontinuity or may otherwise affect Fiber Assets or Associated Property.

6.2 Emergency and Unscheduled Maintenance

Any event that renders the Fiber Assets unsuitable for Grantee's use as set forth in the IRU Agreement (including a cut cable or other functional outage), of which Grantee had no prior knowledge, shall require an immediate response by Grantor to restore Fiber Assets to good working order ("Emergency Maintenance"), as set forth in this section. Grantor Maintenance on Fiber Assets that is not regular Scheduled Maintenance and is not required in response to an outage shall be considered "Unscheduled Maintenance." Grantor shall notify Grantee as soon as possible after becoming aware of the need for Emergency or Unscheduled Maintenance.

6.2.1 Emergency Maintenance

Grantor shall respond to any event requiring Emergency Maintenance as quickly as possible, and shall have its first maintenance personnel at the site requiring Emergency Maintenance within six (6) hours after the time Grantor becomes aware (whether through notification by a Party, a third party, or any other means)

of the event requiring Emergency Maintenance, unless delayed by Force Majeure Events.

6.3 Restoration

When restoring functionality to Fiber Assets, the Parties agree to work together to restore all traffic as quickly as possible. Upon arriving on the site of the event, Grantor shall promptly determine the course of action necessary and commence restoration efforts.

6.4 Relocation

If Grantor is required to relocate any portion of the Fiber Assets or Associated Property due to any condemnation or taking under the power of eminent domain, or for any other reason, Grantor shall immediately provide Grantee written notice. Grantor shall have the right, in good faith, to make a reasonable determination of the extent, timing, and methods to be used to effect such relocation; *provided* that (i) Grantor shall keep Grantee fully informed of all material determinations that Grantor makes in connection with such relocation, (ii) any affected Fiber Assets and Associated Property shall be relocated and tested in accordance with commercial standards, and (iii) the relocation shall not adversely affect the operations, performance, or points of connection with Customer networks or with the end points in the Grantee's network. Any and all expenses relating to relocation shall be proportionally allocated among affected IRU holders and Grantor.

6.5 Repairs

In performing repairs, Grantor will comply with the Parameters and other specifications as set forth in Exhibit B of the IRU Agreement.

7.0 Subcontracting

Grantor may subcontract any of its maintenance obligations, provided that Grantor shall require its subcontractor(s) to meet all requirements and procedures set forth in this Agreement. The use of any such subcontractor shall not relieve Grantor of any of its Maintenance obligations.

8.0 Compensation

8.1 Amount

Grantee will pay to Grantor an annual Maintenance Charge in the amount of \$ _____, which shall be invoiced by Grantor.

8.2 Adjustments to Amount

The compensation specified in Section 8.1 shall be adjusted annually for the month following the anniversary date of this agreement. The adjustment shall be made by increasing the then existing compensation rate by the total change in the Consumer Price Index during the year immediately preceding the adjustment date. In no event shall the compensation be less than that established for the previous year. The Consumer Price

Index to be used shall be that published for the Chicago area by the United States Department of Labor (Avg. of 1982-1984 = 100, All Items for All Urban Consumers).

8.2.1 Grantor may adjust basic maintenance rates at 3-year intervals from the Effective Date to reflect substantial changes in circumstances.

8.3 Invoice and Payment Terms

Payment of each invoice is due within twenty-eight (28) days of Grantee's receipt of such invoice.

8.4 Invoicing and Payment Addresses

Grantor will send invoices payable by Grantee to the following address:

[Grantee Accounts Payable]

Grantee will send payments due Grantor to the following address:

[Grantor Accounts Receivable]

8.5 Late Payments

If payment is not received by Grantor from Grantee within fifteen (15) days of when due and payable under this Agreement, then a late fee of the lesser of (i) five percent (5%) per month or (ii) the maximum percentage permitted by law may be assessed on the delinquent balance not paid by the due date. Any such late fee shall be paid within thirty (30) days of receipt of an invoice therefor and shall cover the period commencing with the day on which such payment was due and ending with the day on which such payment is actually received, both inclusive. The payment of any such late fee shall not be deemed an extension of time for payment or a waiver of any failure to remit any other payment due under this Agreement as and when such payment is due. Notwithstanding the foregoing, failure by Grantee to pay an invoice within fifteen (15) days of when due and payable under this Agreement shall be deemed a Default, in which case Grantor may pursue the remedies for breach set forth in Section 12 of this Agreement, in addition to any other rights and remedies available to Grantor under applicable law.

9.0 Remedies

9.1 Default and Cure

A Default under this Agreement shall occur if (a) a Party fails to perform, in any material respect, any of its obligations set forth in this Agreement, (b) such failure is not excused by any provision of this Agreement, and (c) such failure continues un-remedied for a period of twenty-eight (28) days following receipt of written notice from the non-breaching Party. If the breach by its nature cannot be cured within twenty-eight (28) days

and the breaching Party within that time has commenced its cure, there shall be no Default as long as the Party diligently continues such cure to completion.

9.2 Remedies

Upon the occurrence of a Default, the non-breaching Party shall have the right, subject to the express limitations contained in this Agreement, to terminate this Agreement and to pursue any and all available legal or equitable remedies against the defaulting Party. The non-breaching Party may pursue such remedies simultaneously or consecutively, at its discretion.

10.0 Confidentiality

10.1 In General.

If either Party provides or has provided confidential or proprietary information (“Confidential Information”) designated as such to the other Party, the receiving Party shall hold such information in confidence and shall afford it the same care and protection that it affords to its own confidential and proprietary information (which in any case shall be not less than reasonable care) to avoid disclosure to or unauthorized use by any third party, except as otherwise provided below. This Agreement and its terms shall not be deemed the Confidential Information of both Parties. All Confidential Information, unless otherwise specified in writing, shall remain the property of the disclosing Party and shall be used by the receiving Party only for the intended purposes set forth in this Agreement. Except as otherwise required by law, after the receiving Party’s need for Confidential Information has expired, or upon the reasonable request of the disclosing Party, or promptly following the termination or expiration of this Agreement, the receiving Party shall destroy or return to the disclosing Party all Confidential Information, including all copies of such information, and all notes, summaries, or other writings reflecting Confidential Information. The receiving Party shall not reproduce Confidential Information, except to the extent reasonably necessary to perform under this Agreement, or as otherwise may be permitted in writing by the disclosing Party.

10.2 Exceptions

The foregoing provisions of this section shall not apply to (i) any required disclosures to the NTIA or other government authority, (ii) disclosures required under the Freedom of Information Act and applicable state or local government open records laws, (iii) any Confidential Information or any provisions of this Agreement which becomes publicly available, other than through the Party claiming this exception, or is required to be disclosed by law, (iv) Confidential Information that is independently developed by the receiving Party without breach of any obligation of confidentiality; (v) Confidential Information that becomes available to the Party claiming this exception without restriction from an unrelated third party, or becomes relevant to the settlement of any dispute or enforcement or defense of either Party’s rights under this Agreement, provided that appropriate protective measures shall be taken to preserve the confidentiality of such

Confidential Information to the extent permissible in accordance with such settlement or enforcement process; (vi) disclosures of this Agreement to any proposed permitted assignee provided that each such proposed assignee agrees to be bound by confidentiality obligations no less stringent than those set forth herein; or (vii) disclosures by either Party of the physical route of Fiber Assets for marketing and sales-related purposes.

10.3 Intellectual Property

Nothing in this Agreement shall be construed as a grant of any right or license under any copyrights, inventions or patents now or later owned or controlled by Grantee or Grantor, and nothing in this Agreement shall be construed as granting any right, title or interest in the other Party's trademarks, trade names, service marks or other intellectual property rights. The Parties agree not to use the trademarks, trade names, or service marks of the other party without prior written permission.

10.4 Survival

The confidentiality provisions in this section shall survive expiration or termination of this Agreement.

11.0 Assignment

Grantee shall not assign its rights in this Agreement without the prior written consent of Grantor, which consent shall not be unreasonably withheld. Nothing in this Agreement shall limit Grantor's right to assign its rights. In the event of an assignment by either Party, the assignee must assume all of the rights and obligations of the assigning Party.

12.0 Notices

All notices, demands and requests required or permitted to be given under the provisions of this Agreement shall be (a) in writing, (b) delivered by facsimile transmission with confirmation of delivery, electronic mail with confirmation of delivery receipt, or sent by overnight commercial delivery service or certified mail, return receipt requested. Notice shall be deemed to have been given on the date of the transmission and receipt of facsimile or electronic mail transmissions, or the delivery date set forth in the records of the delivery service or on the return receipt when addressed as follows:

If to Grantor

Contact: City Manager

Mailing Address: 102 N. Neil Street, Champaign, IL 61820

Phone: (217) 403-8710

Fax: (217) 403-8725

Email:

With a copy to:

If to Grantee:

Contact:

Mailing Address:

Phone:

Fax:

Email:

With a copy to:

or to any such other persons or addresses as the Parties may from time to time designate in a writing delivered in accordance with this Section.

13.0 Indemnification

To the extent permitted by law, each Party, on behalf of itself and its affiliates, directors, officers, employees, agents, successors, and assigns (“Indemnitor”) agrees to indemnify, defend, protect and hold the other Party and its directors, officers, directors, employees, agents, successors, and assigns (“Indemnified Persons”) harmless from and against any liability arising out of any claims, suits, actions, damages, claims, losses, fines, judgments, costs and expenses (including reasonable attorneys’, accountants’, experts’ fees) of any kind or character (collectively “Claims”) incurred by any Indemnified Persons (a) because of the death of any person, or any injuries or damage received or sustained by any persons or property, which in whole or in part arise on account of the negligent acts or omissions of the Indemnitor in the performance or non-performance of its obligations or exercise of its rights under this Agreement, including any material violation by Indemnitor of any law or permit applicable thereto; (b) under the Workers’ Compensation laws asserted by any other person providing goods or services for or on behalf of any of the foregoing in connection with this Agreement; or (c) arising out of,

caused by, related to, or based upon, a contractual or other relationship between such claiming party and the Indemnitor, as it relates to Fiber Assets.

13.1 Additional Indemnity by Grantee

Additionally, Grantee agrees to indemnify, defend, protect and hold Grantor and its directors, officers, directors, employees, agents, successors, and assigns harmless from any Claims arising out of or resulting (a) from use or operation of the Fiber Assets by Grantee or its agents, or (b) from the provision or interruption of any connectivity, services, or content through the Fiber Assets, or (c) from the use of the Fiber Assets by Grantee's or its agents' Customers.

13.2 Exceptions

An Indemnitor's obligations under this section shall not apply to any Claims to the extent caused by the negligence, intentional acts or omissions, willful misconduct, or reckless action by a person claiming indemnification.

14.0 LIMITATION OF LIABILITY

EXCEPT AS OTHERWISE EXPRESSLY PROVIDED IN THIS AGREEMENT, NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR ANY SPECIAL, INCIDENTAL, INDIRECT, PUNITIVE OR CONSEQUENTIAL COSTS, LIABILITIES OR DAMAGES, WHETHER FORESEEABLE OR NOT, INCLUDING WITHOUT LIMITATION AS APPLICABLE, ECONOMIC LOSS OR LOST BUSINESS OR PROFITS, INTERRUPTIONS OF SERVICE, OR ANY DELAY, ERROR OR LOSS OF DATA OR INFORMATION, ARISING IN ANY MANNER OUT OF, OR IN CONNECTION WITH, THIS AGREEMENT AND GRANTEE'S PERFORMANCE OR NONPERFORMANCE OF ITS OBLIGATIONS UNDER THIS AGREEMENT, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT OR TORT (INCLUDING STRICT LIABILITY), ALL CLAIMS FOR WHICH ARE HEREBY SPECIFICALLY WAIVED BY GRANTOR.

15.0 Representations and Warranties; Disclaimers

By execution of this Agreement, each Party represents and warrants to the other that: (a) the Party is duly organized, validly existing and in good standing under the Laws of the jurisdiction of its organization; (b) the Party has full right and authority to enter into and perform this Agreement in accordance with the terms hereof and thereof; (c) the Party's execution, delivery, and performance of this Agreement will not conflict with, violate or result in a breach of (i) any law, regulation, order, writ, injunction, decree, determination or award of any governmental authority or any arbitrator, applicable to such Party, (ii) any of the terms, conditions or provisions of its charter, bylaws, or other governing documents of such Party, (iii) any material agreement to which it is a party, or (iv) any instrument to which such Party is or may be bound

or to which any of its material properties or assets is subject; (d) the Party's execution, delivery and performance of this Agreement has been duly authorized by all requisite corporate action; (e) that the signatories for such Party are authorized to sign this Agreement; (f) there are no actions, suits, proceedings or investigations pending, or to the knowledge of the Party, threatened against or affecting the Party of any of its properties, assets or businesses in any court or before or by any governmental authority that could, if adversely determined, reasonably be expected to have a material adverse effect on the Party's ability to perform its obligations under this Agreement; (g) the Party has not received any currently effective notice of any material default; and (h) the Party has not previously been and is not currently, debarred, suspended, or proposed for debarment, declared ineligible, voluntarily excluded from transactions by any federal or state department or agency, or subject to any inquiry, investigation, or proceeding regarding the foregoing.

16.0 General Disclaimer

GENERAL DISCLAIMER. EXCEPT AS SPECIFICALLY SET FORTH IN THIS AGREEMENT, GRANTOR MAKES NO WARRANTY, WHETHER EXPRESS OR IMPLIED, AS TO THE MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF ANY OF ITS FIBERS, OR ANY SERVICE PROVIDED HEREUNDER OR DESCRIBED HEREIN, OR AS TO ANY OTHER MATTER, ALL OF WHICH ARE HEREBY EXPRESSLY EXCLUDED AND DISCLAIMED.

17.0 Taxes

Each Party shall be responsible for paying its own federal, state or local sales, use, excise, value-added, personal property, income or other taxes or charges assessed on or levied against any transaction or event arising from the performance of this Agreement.

18.0 Insurance

During the term of this Agreement and IRU, each Party shall maintain a policy of comprehensive liability insurance, including public liability, bodily injury, and property damage, written by a company licensed to do business in the State of Illinois, covering use and activity contemplated by this Agreement with combined single limits of no less than One Million Dollars (\$1,000,000.00) per occurrence and Two Million Dollars (\$2,000,000.00) aggregate, with Five Million Dollars (\$5,000,000.00) umbrella coverage. Each Party shall name the other Party, including its officers, employees, and agents, as Additional Insureds for the said purpose and use of this Agreement. Each Party shall also maintain Workers' Compensation insurance to meet the requirements of the Workers' Compensation laws of Illinois where applicable. Certificates of Insurance evidencing such insurance coverage shall be provided to either Party upon the other Party's request.

19.0 Relationship of the Parties

19.1 No Joint Venture

This Agreement is not intended to create, nor shall it be construed to create, any partnership, joint venture, or employment relationship between Grantor and Grantee, and neither Party shall be liable for the payment or performance of any debt, obligations, or liabilities of the other Party, unless expressly assumed in writing. Each Party covenants that it shall not act in a manner that may be construed to be inconsistent with the foregoing nor otherwise act or purport to act on behalf of the other Party except as may be expressly authorized in writing by the other Party. Grantor and Grantee, in performing any of their obligations hereunder, shall be independent contractors or independent Parties and shall discharge their contractual obligations at their own risk subject, however, to the terms and conditions hereof.

20.0 Force Majeure

20.1 Force Majeure Events

Notwithstanding any other provision of this Agreement, neither Grantor nor Grantee shall be liable for any failure or delay in performing its obligations, or for any loss or damage, resulting from any event or circumstance beyond the reasonable control of the Party, including but not limited to an earthquake, hurricane, fire, flood, lightning, sinkhole or other forces of nature, acts of war, terrorism or civil unrest, strikes, lockouts or other labor unrest, or legal order, government action or application of laws, regulations or codes (“Force Majeure Event”), *provided* that the obligation of the Grantee to pay the Grantor as provided in this Agreement shall be not be diminished by a Force Majeure Event.

20.2 Response to Force Majeure

A Party whose performance is impacted by a Force Majeure Event shall provide reasonable notice to the other Party and shall make commercially reasonable efforts to minimize the impact of the Force Majeure Event on its performance.

20.3 Suspension Pending Force Majeure

The deadline by when a Party must perform an obligation under this Agreement, other than payment of money, shall be postponed by the period of time by which the Party’s ability to perform that obligation is materially prevented or interfered with by a Force Majeure Event.

21.0 Applicable Law

This Agreement will be governed and construed in accordance with the laws of the State of Illinois, without regard to any conflicts of law provisions that would affix jurisdiction in another State, and any dispute arising out of this Agreement shall be filed in a court of competent jurisdiction in Champaign County, Illinois.

22.0 Headings

Headings and captions of this Agreement’s sections and paragraphs are only for convenience and reference. These headings and captions shall not affect or modify this Agreement’s terms or be used to interpret or assist in the construction of this Agreement.

23.0 Waiver

Any right or remedy provided for in this Agreement shall not preclude the exercise of any other right or remedy under this Agreement or under any provision of law, nor shall any action taken or failure to take action in the exercise of any right or remedy be deemed a waiver of any other rights or remedies at the time.

24.0 Entire Agreement; Amendments

This Agreement and the Exhibits constitute the entire agreement between the Parties with respect to the subject matter hereof, and supersede all previous understandings, commitments or representations, whether oral or written, concerning the subject matter. Each Party acknowledges that the other Party has not made any representations other than those that are contained herein. This Agreement may not be amended or modified in any way except by a writing signed by the authorized representatives of the Parties.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the day and year first above written.

Grantor:

By: _____

Name: _____

Title: _____

Date: _____

Grantee:

By: _____

Name: _____

Title: _____

Date: _____

RESOLUTION NO. 2012-12

A RESOLUTION

APPROVING WHOLESALE AND DARK FIBER SERVICES AND RATES

NOW, BE IT RESOLVED BY THE UC2B POLICY COMMITTEE, as follows:

Section 1. That the wholesale and dark fiber services and rates identified in the attached report are hereby incorporated herein and approved.

RESOLUTION NO. 2012-12

PASSED:

APPROVED: _____
Policy Committee Chair



May 18, 2012

To: The UC2B Policy Board

From: Mike Smeltzer

Re: Wholesale and Dark Fiber Services and Rates

Background: There are three types of wholesale services that we anticipated UC2B providing in our NTIA grant application. The proposed wholesale pricing we have recently provided NTIA is attached at the end of this narrative.

Layer-Two transport – where the Internet Services Provider (ISP) redundantly connects to the UC2B network core and we then provision a VLAN for that ISP to each of its customers. We charge the ISP for the dual connections to the UC2B core network and then for each customer that they “own” on the network. UC2B-owned electronics are used to deliver the ISP’s services and each of the ISP’s customers has specific port speeds at which they can connect to the ISP. The faster those customer port speeds the more they cost.

Example: Company X offers triple-play services of Internet, video and voice and wants total control over the VLAN that delivers those services for quality reasons, so they select this service model.

Layer-Three service – where the ISP redundantly connects to the UC2B network core, but then utilizes the UC2B Intranet and the fact that the customer has an existing IP service provider to piggyback additional services to that customer. We charge the ISP the same rates for redundantly connecting to the UC2B network core, but there are no additional charges for each customer. This ISP does not “own” the end customers, who must rely on their IP services providers to be able to receive the services from the second provider.

Example: Company Y only provides IP telephone services. Any UC2B Internet customer has an ONT that can also be used by Company Y to provide SIP-based IP telephone services. The customer pays UC2B for Internet access and Company Y for telephone services. In the fullness of time UC2B may be able to combine those billings.

Dark Fiber: By virtue of the fact that we have agreed to provide Indefeasible Rights of Use (IRU) dark fiber contracts to several entities, by NTIA’s rules, we must continue to provide dark fiber to others (as long as we have sufficient strands to do so.) For now, ring fiber availability is not a large concern, but how to structure future dark fiber deals must be decided by the Policy Board. There are two ways we can provide dark fiber – by long-term IRUs or by short-term leases.

An IRU is a specialized lease under which the lessee pays a one-time fee that enables them to use the leased dark fiber strands for typically a period of 20 years – often with some restrictions on that use mandated by the lessor. There are usually annual maintenance contracts that accompany IRU agreements and sometimes co-location agreements for housing dark-fiber enabling electronics as well. Private sector lessees can treat IRUs like a capital asset and depreciate them, which is usually good for their balance sheet.

A dark fiber lease looks just like a lease for your car, except that all fiber maintenance is included in the monthly lease payment. The lease expense is treated like an operational expense on the books of the lessee, and the lessee makes monthly payments to the owner of the fiber. The term of a fiber lease is usually much shorter than an IRU – 1 to 5 years is typical.

Both dark fiber IRUs and leases often also have one-time set-up, make-ready or construction charges to connect the owner’s fiber strands being leased to the lessee’s infrastructure. Those charges are often just pass-thru time and materials costs.

UC2B’s Wholesale Services

Layer Two Services: We have proposed three different levels of redundant connectivity to the UC2B core for ISPs; 1 Gbps, 2 Gbps and 10 Gbps. Those are easy to achieve without any tinkering with the routers involved. With a 10 Gbps router port, we could actually deliver any bandwidth between 1 and 10 Gbps. If we some day have demand for 5 Gbps dual core connections, we can easily come up with a monthly rate to provide that.

We only proposed 2 levels of customer connections for Layer Two services to NTIA – 100 Mbps and 1 Gbps. The 100 Mbps customer connection is priced at \$19.99, which our financial modeling showed was as low as we could go per customer and still be sustainable. That is a great price compared to what is available from AT&T and McLeodUSA-Paetec-Windstream.

The 1 Gbps customer connection is priced at \$99.99 a month, which also is very favorable when compared to AT&T and McLeodUSA-Paetec-Windstream. Again if there is demand for bandwidth and price points in between those two end points of our pricing spectrum, with some configuration of the right routers, we could achieve any customer bandwidth between those end points.

The Adtran ONTs will actually support four separate service providers (ISPs) simultaneously. Each ISP’s service could be assigned to a different Ethernet port on the ONT. While it might not be cost effective for either the customer or the four providers, one ISP could provide Internet service through Port 1. A second ISP could provide an IP video service though Port 2. A third ISP could provide a home security service through Port 3, while a fourth ISP could provide an on-line gaming service through Port 4. The customer would need a scorecard to know what to plug into which port, but UC2B would collect customer port charges from all four ISPs. While this 4 ISP configuration is technically possible, it is probably not something we would recommend, due to all the complexity it creates.

Layer Three Services: Depending on the technical requirements of the services being provided, some ISPs may prefer to piggyback their services on top of an existing Internet connection, and save money on the customer port charges. That is an acceptable business model and it is encouraged. The provider's only UC2B costs are for the dual redundant connections to the UC2B network core.

In this model, if a customer's underlying Internet service goes down, this piggybacked providers service will most likely go down with it, so there are potential liabilities that accompany the reduced costs.

Ramping up the ISP core connection charges: When an ISP is first connecting to UC2B; the proposed ISP core connection rates will be a burden if the ISP only has a handful of customers. To make providing services on the UC2B network more inviting, there is an attached spreadsheet that suggests a way of ramping up those core connection charges over the first 12 months.

The ISP would pay the lessor of a flat rate per customer or a predetermined monthly rate that escalates every month and is based on the full core connection bandwidth charge. If after a year an ISP does not have 120 customers, they will be paying more on average per customer for the core connection than they did the first year. If that ISP does not have 120 customers after the first year it might also be an indication that they are not a good fit for providing services on the UC2B network.

It would be ISP friendly to have some means of ramping up the core connections charges. The plan suggested is one of many possibilities.

IRUs: I believe we should make the IRU rates that NTIA approved and that we have agreed to with more than a half dozen UC2B "investors" as our pricing floor for any future IRUs. We may even want to consider charging more for future IRUs, as we can no longer leverage those IRU one-time funds with grant funds.

We need the grant-matching funds that those "investors" IRUs will produce, and the Letters of Intent that we have with those "investors" spell out exactly what they will be getting and at what rates. Our consultant Diane Kruse has indicated that those IRU rates are reasonable, so I see no value in contemplating any changes in the rates for the investors' IRUs. For future IRUs, Diane has indicated that we could go as high as \$2,500 per-strand-mile and still be "reasonable" when compared to the prices charged by other fiber owners for IRUs in similar environments.

The basic elements of our "investor" IRUs are a one-time charge of \$1,500 per-strand-mile, but always requiring strands to be purchased in pairs, and always requiring entire backbone rings to be purchased at a time. So the minimum IRU purchase for the "investors" was two strands on one UC2B backbone ring.

With the improvements in single-strand bi-directional optics over the past three years and the reduced strand counts on our rings, I believe we can drop the requirement that an organization buy at least two strands on any given ring. However, I believe we should stick with the requirement that we only sell IRU's or lease dark fiber a complete backbone ring at a time. Selling anything less than a complete ring leaves us with fiber-tracking headaches and is not worth the legal expense that UC2B will incur to negotiate additional IRU agreements. We might even want to set a minimum dollar amount for any future IRUs.

For the "investor" IRUs, to that one-time charge we added a \$300 per route mile annual maintenance fee, and a flat \$600 per year maintenance fee for each lateral connection. All of UC2B's "investors" will be getting their IRU fiber in various quantities on the seven rings and four sub-rings according to their needs. Not all "investors" needed dark fiber on every UC2B ring, while others did. Some organizations required many laterals to be constructed, while some needed very few, so those one-time IRU charges varied greatly among the "investors".

Do we offer more IRUs or just dark fiber leases as we move forward?

Our consultant will weigh in with her thoughts, and the Technical Committee forwarded a report last summer on this topic. We have already discussed trading or selling IRU's to some of the other BTOP projects, but the Policy Board will need to decide if we want to just offer IRUs, just offer leases, or offer some combination of the two to organizations that want future access to dark fiber on UC2B's rings and laterals.

The Technical Committee report goes into greater nuance, but the broad strokes of the decision are – do we want more recurring revenue to enhance our sustainability over the coming years, or do we want more one-time money now to possibly fund building out to more homes and businesses in our FTTP areas or to more Anchor Institutions throughout the community. You will be having this discussion on the 24th after we get the bids for the FTTP construction and we will have a better idea of where we stand relative to the budget for that work. That could well influence this decision for the short term.

Assuming we are OK on our FTTP construction budget, I would favor only offering dark fiber leases moving forward, as that will help with UC2B's sustainability as well as enhance the Community Benefit fund. We are restricted by NTIA in how we spend any IRU funds that we collect before 2/1/13. They can only be applied to grant-eligible expenses, so any revenue from additional IRU's we sell before the end of the grant cannot flow to the Community Benefit fund. Starting 2/1/13, the recurring lease revenue can fund whatever we want it to.

Do we allow "investor" IRU and new IRU holders to resell their dark fiber strands?

This question was discussed at the last Policy Board meeting, but was not included in the Private Expansion Plan. I still believe that UC2B's financial and operational best interests are served if UC2B has a direct business relationship with each user of dark fiber on the UC2B rings and laterals. Therefore I would prefer an outright ban on re-selling or sub-leasing dark fiber. I should also add that the "stock language" that was initially provided by our attorneys handling the IRU's specifically banned resale or subleasing dark fiber strands.

However, as there may not be consensus for that outright ban, there is a compromise position that might address the main concerns we heard from some private providers at the last meeting. The revised language in the draft IRU contract currently allows an IRU holder to sub-lease or sell strands with the written permission of UC2B. The compromise would be that the Policy Board adopts a policy that says that we will allow private companies to do this, but not allow public entities to do so.

None of our public entities care about the tax consequences of an IRU. None of our public entities have arranged financing based on their ability to sell their IRU strands if necessary or to use them for collateral. This restriction does not impede the ability of those public entities to use the fiber for the purposes for which it was acquired in the first place.

UC2B would lose maintenance revenue if all of the providers in the room at the last meeting went together and purchased one large IRU for multiple strands and then split the strands and the maintenance costs amongst themselves, but the providers could then possibly capitalize the leases and sub-leases and get the financial benefits they seek from having the flexibility to sell the fiber assets.

If there is not majority of the Policy Board that is in favor of an outright ban on resale and sub-leasing, I believe this compromise would be our next best option to consider.

How to price dark fiber leases?

Assuming that we will offer dark fiber leases, the next question becomes how we price them.

To arrive at dark fiber lease rates that work in concert with our existing IRU rates, one of the attached spreadsheets starts with a \$375 per strand-mile per-year base rate (essentially the one-time IRU costs spread over 20 years with the annual maintenance charge added in) and then looks at what happens when the base fiber lease rate is incremented by 200% to 600% which corresponds to a range of average business interest rate assumptions that feed simple net present value calculations. The base maintenance rate does not have to be increased for it is paid monthly or annually under an IRU. This formula produces a linear scale, and one that is reasonably easy to understand.

If we implemented one of the lease rates that are greater than the base rate, we could also consider offering a sliding scale discount that is based on the length of the contract. The rates I have shown would be the 1-year lease rates. These would not be giant discounts, but perhaps a couple of percentage point's reduction for each year a lessee commits to - up to a maximum of five. These discounts would encourage longer contracts, which make future financial projections easier to make. The term discount would be simple to calculate and bill.

If we offered ISPs a 2% discount for each additional year they signed up for (up to a maximum term of 5 years) and an ISP signed a 5-year deal; that would get them 8% off the base price for signing up for 4 extra years. We do not have to offer any discounts based on the length of the contract, but they are common in telecommunications pricing.

I believe we need to start with our NTIA-approved and “investor” customer-committed IRU rates and then bump them up at least 400% or 500% to cover net present values and call those our lease rates. The difference in those rates is an assumption of business interest rates working out to an average of 7.2% or 9.0% over the next 20 years. If those seem high, there are also calculations for 3.6% and 5.4% business interest rates, which increase the base IRU rate by 200% and 300% respectively.

I have also included a second spreadsheet that assumes that the rates for future IRUs will be \$2,000 per strand mile instead of \$1,500. Because the IRU maintenance rate is factored into the lease rates, this increase does not have the impact on the final lease rates that might be expected. I believe Diane will recommend the \$2,000 per strand-mile price point for future IRUs. There are no other fiber owners selling IRUs or leasing fiber in this market in all the areas where UC2B has fiber, so there are no appropriate competitive prices that we can compare these rates to.

In determining our dark fiber lease rates we need to be sensitive to what UC2B may want to charge for Private VLAN or layer-two transport services. If our monthly dark fiber lease rate on Ring #2 is \$841.00, UC2B will never get much more than \$841.00 from any organization for Private VLAN or Layer-Two transport services on that ring at any bandwidth - even though the customers have to supply their own equipment and expertise to deploy dark fiber and that is included in the UC2B Private VLAN or Layer-Two transport services.

There are operational reasons why one company may prefer to use dark fiber, while another would prefer to have a Private VLAN or Layer-Two connection operated by UC2B. The prices we set for our dark-fiber leases (which hold the promise of “unlimited bandwidth”) will constrain our 1 Gbps, 10 Gbps and 100 Gbps Private VLAN and Layer-Two transport pricing. That alone may steer us to one of the higher lease rates.

How to charge for access to dark fiber on “grant-funded” laterals and drops?

UC2B will have some Anchor Institution locations where the lateral and drop cables were totally funded by the grant and at which we will have 12-strand drop cables. Two of those 12 strands will typically be reserved for UC2B’s use. If “Provider A” were to ask to use some of those lateral and drop cable strands, what would UC2B charge that provider for either an IRU or a dark fiber lease? That question assumes that there would be some charges, and that access to dark fiber strands on those grant-funded lateral and drop cables would not be free for ISPs. I believe that is a reasonable assumption.

We already have established a flat lateral maintenance rate of \$600 per year for “investor” IRU holders. On a per-mile basis that probably averages several times as much as the maintenance rate for the backbone fiber cables.

For the “investors”, a flat rate was the best we could do three years ago; for we did not know the length of each lateral at the time we submitted the grant application. We could keep the flat lateral maintenance rate moving forward, or we could develop a higher maintenance rate for lateral and fiber drop cables on a per-mile basis. We need the currently planned recurring maintenance revenue that the flat rate will provide from our “investors”, so I am going to suggest that we stick with the \$600 per year per lateral connection maintenance rate for all laterals, whether they be for the original “investors” or for new IRU holders.

UC2B will most likely establish a per-strand-mile dark-fiber lease rate and a per-strand-mile IRU rate, so for dark fiber leased or IRU access to grant-funded laterals, those laterals can be priced in the same per-strand-mile manner as the IRU or leased dark fiber on the backbone rings.

Bulk Rates for Multi-Dwelling-Unit (MDU) Apartment Buildings and Multi-Tenant-Unit (MTU) Commercial Buildings

Our consultant agrees that we should offer bulk rates to owners of MDUs and MTUs in the grant-funded areas and get them to pay for the first X years of UC2B connectivity for their tenants in exchange for the value that having UC2B fiber will add to their property and the desirability of that property for future renters once it has UC2B fiber installed. Whether the building owner absorbs the UC2B monthly service fees, or passes them on to the tenants in some manner would be up to each building owner.

Our attorneys are working on a bulk-rate contract form for landlords and there are a couple of “policy” questions that must be answered before they can complete their work.

1. How long will we require a building owner to commit to? Our “standard” residential and business contracts are for two years. Our attorneys’ original suggestion was 5 years for MDU/MTU owners. I believe that is too long to ask for. I would be fine with 2 or 3 years.
2. Will we require MDU-MTU building owners to commit to 100% of their units, or might we allow something less? 50% would seem to be the least we would accept, but anything more than 50% would exceed our projections for take rate, so we should be fine with that. Logistically it will be hard for the landlord to deal with anything less than 100% of the units, but that is the landlord’s problem not ours.
3. What sort of discount will we provide? Might it be tied to the percentage of units that are subscribed? In theory, we save money by just issuing one bill each month for multiple customers. In theory, a landlord is more likely to pay the UC2B invoice on a timely regular basis, than all of the individual renters. So there is some logic that we have saved costs that we can share with a landlord that subscribes for the units in his or her building.
To keep it simple, we could offer:
5% discount for at least 50% of the units in a building or complex
10% discount for at least 70% of the units in a building or complex
15% discount for at least 90% of the units in a building or complex
20% discount for 100% of the units in a building or complex



Wholesale Service Offerings will be the same throughout the entire UC2B service area

ISP and Service Provider Layer Two Transport Service Offering				
Customer Connections	Locations Where Available	Symmetric Ethernet Port Speed (Mbps)	Monthly Pricing	Comments
Last Mile Internet Service Provider (ISP) Customer 100 Mbps Port	Any of 500 Points of Interconnection (POI) or customer locations on the UC2B network	100 Mbps	\$19.99	ISP/Service Provider must connect to UC2B core in one of the 3 ways below
Last Mile Internet Service Provider (ISP) Customer 1 Gbps Port	Any of 500 Points of Interconnection (POI) or customer locations on the UC2B network	1,000 Mbps (1 Gbps)	\$99.99	ISP/Service Provider must connect to UC2B core in one of the 3 ways below
Core Backbone Connections				
Last Mile Internet Service Provider (ISP) Redundant Core Connections Dual 1 Gbps Ports	Any of 500 Points of Interconnection (POI) or customer locations on the UC2B network	1,000 x 2 (1 Gbps x 2)	\$1,200	No CIR/VLAN charge. (Includes any UC2B ring fiber needed to connect to ISP)
Last Mile Internet Service Provider (ISP) Redundant Core Connections Dual 2 Gbps Ports (2 bridged 1 Gbps Ports)	Any of 500 Points of Interconnection (POI) or customer locations on the UC2B network	2,000 x 2 (2 Gbps x 2)	\$1,600	No CIR/VLAN charge. (Includes any UC2B ring fiber needed to connect to ISP)
Last Mile Internet Service Provider (ISP) Redundant Core Connections Dual 10 Gbps Ports	Any of 500 Points of Interconnection (POI) or customer locations on the UC2B network	10,000 x 2 (10 Gbps x 2)	\$3,600	No CIR/VLAN charge. (Includes any UC2B ring fiber needed to connect to ISP)
Note # 1 - All core elements of the network are non-blocking and are interconnected at 10 Gbps.				
Note # 2 - All ring fiber necessary to connect Provider is included in the Backbone Connection rates.				
Note # 3 - Customer-end electronics are provided by UC2B.				

Dark Fiber - Indefeasible Rights of Use Agreements (IRUs)			
IRU Element	One-Time Charge for 20-Year IRU	Recurring Annual Charge for Maintenance	Comments
IRU - Per Strand Mile - Sold in complete rings	\$1,500 per strand mile	N/A	Sold only in pairs of fiber and for the entire length of a UC2B ring
IRU - Per Lateral Connection	Actual construction costs, or pro-rated costs if shared	N/A	Sold only in pairs of fiber
Fiber and Facilities Maintenance - Charged in complete rings	N/A	\$300 per year per route mile	Not dependent on the number of strands
Maintenance - Per Lateral Connection	N/A	\$600 per year per lateral	No pro-rating if shared

Calculation of UC2B Dark Fiber Lease Rates - Existing IRU Rates

5/18/12

IRU Rates from NTIA Grant Proposal and Letters of Intent

- \$1,500 20-Year IRU rate per strand mile for initial UC2B Investors
- \$600 Annual Flat Rate per Lateral Connection for Fiber Maintenance (independent of strands used)
- \$300 Annual Maintenance Rate for Ring Fiber Maintenance per route mile (independent of strands used)
- \$75 IRU Rate per strand mile per year - based on 20 year IRU

IRU Length of each UC2B Backbone Ring in Miles

Ring # 1	Ring #1A	Ring # 2	Ring # 3	Ring #3A	Ring #4	Ring #5	Ring #6	Ring #6A	Ring #7	Ring # 7A
16.41	7.08	16.82	19.97	8.60	22.70	15.98	15.29	15.98	11.57	14.95

Base Rate - based on existing UC2B IRU rates

- \$75.00 Annual IRU Rate per strand-mile per year
- \$300.00 Annual IRU Maintenance rate per route mile
- \$375.00 Annual Lease Rate per strand-mile
- \$31.25 Monthly Lease Rate per strand-mile

Monthly Lease Rate of Each Fiber Strand on a UC2B Backbone Ring

Ring # 1	Ring #1A	Ring # 2	Ring # 3	Ring #3A	Ring #4	Ring #5	Ring #6	Ring #6A	Ring #7	Ring # 7A
\$513	\$221	\$526	\$624	\$269	\$709	\$499	\$478	\$499	\$362	\$467

200% Increase of Base IRU Rate

- 3.6% Annual Percentage rate used for simple Net Present Value calculation
- \$150.00 Annual IRU Rate per strand-mile per year
- \$300.00 IRU Maintenance rate per strand mile
- \$450.00 Annual Lease Rate per strand-mile
- \$37.50 Monthly Lease Rate per strand-mile

Monthly Lease Rate of Each Fiber Strand on a UC2B Backbone Ring

Ring # 1	Ring #1A	Ring # 2	Ring # 3	Ring #3A	Ring #4	Ring #5	Ring #6	Ring #6A	Ring #7	Ring # 7A
\$615	\$266	\$631	\$749	\$323	\$851	\$599	\$573	\$599	\$434	\$561

300% Increase of Base IRU Rate

- 5.4% Annual Percentage rate used for simple Net Present Value calculation
- \$225.00 Annual IRU Rate per strand-mile per year
- \$300.00 IRU Maintenance rate per strand mile
- \$525.00 Annual Lease Rate per strand-mile
- \$43.75 Monthly Lease Rate per strand-mile

Monthly Lease Rate of Each Fiber Strand on a UC2B Backbone Ring

Ring # 1	Ring #1A	Ring # 2	Ring # 3	Ring #3A	Ring #4	Ring #5	Ring #6	Ring #6A	Ring #7	Ring # 7A
\$718	\$310	\$736	\$874	\$376	\$993	\$699	\$669	\$699	\$506	\$654

400% Increase of Base IRU Rate

7.2% Annual Percentage rate used for simple Net Present Value calculation

\$300.00 Annual IRU Rate per strand-mile per year

\$300.00 IRU Maintenance rate per strand mile

\$600.00 Annual Lease Rate per strand-mile

\$50.00 Monthly Lease Rate per strand-mile

Monthly Lease Rate of Each Fiber Strand on a UC2B Backbone Ring

Ring # 1	Ring #1A	Ring # 2	Ring # 3	Ring #3A	Ring #4	Ring #5	Ring #6	Ring #6A	Ring #7	Ring # 7A
\$821	\$354	\$841	\$999	\$430	\$1,135	\$799	\$765	\$799	\$579	\$748

500% Increase of Base IRU Rate

9.0% Annual Percentage rate used for simple Net Present Value calculation

\$375.00 Annual IRU Rate per strand-mile per year

\$300.00 IRU Maintenance rate per strand mile

\$675.00 Annual Lease Rate per strand-mile

\$56.25 Monthly Lease Rate per strand-mile

Monthly Lease Rate of Each Fiber Strand on a UC2B Backbone Ring

Ring # 1	Ring #1A	Ring # 2	Ring # 3	Ring #3A	Ring #4	Ring #5	Ring #6	Ring #6A	Ring #7	Ring # 7A
\$923	\$398	\$946	\$1,123	\$484	\$1,277	\$899	\$860	\$899	\$651	\$841

600% Increase of Base IRU Rate

10.8% Annual Percentage rate used for simple Net Present Value calculation

\$450.00 Annual IRU Rate per strand-mile per year

\$300.00 IRU Maintenance rate per strand mile

\$750.00 Annual Lease Rate per strand-mile

\$62.50 Monthly Lease Rate per strand-mile

Monthly Lease Rate of Each Fiber Strand on a UC2B Backbone Ring

Ring # 1	Ring #1A	Ring # 2	Ring # 3	Ring #3A	Ring #4	Ring #5	Ring #6	Ring #6A	Ring #7	Ring # 7A
\$1,026	\$443	\$1,051	\$1,248	\$538	\$1,419	\$999	\$956	\$999	\$723	\$934

Calculation of UC2B Dark Fiber Lease Rates - New IRU Rates

5/18/12

New IRU Rates

- \$2,000 New 20-Year IRU rate per strand mile for new IRU purchasers
- \$600 Annual Flat Rate per Lateral Connection for Fiber Maintenance (independent of strands used)
- \$300 Annual Maintenance Rate for Ring Fiber Maintenance per route mile (independent of strands used)
- \$100 IRU Rate per strand mile per year - based on 20 year IRU

IRU Length of each UC2B Backbone Ring in Miles										
Ring # 1	Ring #1A	Ring # 2	Ring # 3	Ring #3A	Ring #4	Ring #5	Ring #6	Ring #6A	Ring #7	Ring # 7A
16.41	7.08	16.82	19.97	8.60	22.70	15.98	15.29	15.98	11.57	14.95

Base Rate - based on New UC2B IRU rates										
\$100.00 Annual IRU Rate per strand-mile per year										
\$300.00 Annual IRU Maintenance rate per route mile										
\$400.00 Annual Lease Rate per strand-mile										
\$33.33 Monthly Lease Rate per strand-mile										

Monthly Lease Rate of Each Fiber Strand on a UC2B Backbone Ring										
Ring # 1	Ring #1A	Ring # 2	Ring # 3	Ring #3A	Ring #4	Ring #5	Ring #6	Ring #6A	Ring #7	Ring # 7A
\$547	\$236	\$561	\$666	\$287	\$757	\$533	\$510	\$533	\$386	\$498

200% Increase of New IRU Rate										
3.6% Annual Business Percentage rate used for simple Net Present Value calculation										
\$200.00 Annual IRU Rate per strand-mile per year										
\$300.00 IRU Maintenance rate per strand mile										
\$500.00 Annual Lease Rate per strand-mile										
\$41.67 Monthly Lease Rate per strand-mile										

Monthly Lease Rate of Each Fiber Strand on a UC2B Backbone Ring										
Ring # 1	Ring #1A	Ring # 2	Ring # 3	Ring #3A	Ring #4	Ring #5	Ring #6	Ring #6A	Ring #7	Ring # 7A
\$684	\$295	\$701	\$832	\$358	\$946	\$666	\$637	\$666	\$482	\$623

300% Increase of New IRU Rate										
5.4% Annual Business Percentage rate used for simple Net Present Value calculation										
\$300.00 Annual IRU Rate per strand-mile per year										
\$300.00 IRU Maintenance rate per strand mile										
\$600.00 Annual Lease Rate per strand-mile										
\$50.00 Monthly Lease Rate per strand-mile										

Monthly Lease Rate of Each Fiber Strand on a UC2B Backbone Ring										
Ring # 1	Ring #1A	Ring # 2	Ring # 3	Ring #3A	Ring #4	Ring #5	Ring #6	Ring #6A	Ring #7	Ring # 7A
\$821	\$354	\$841	\$999	\$430	\$1,135	\$799	\$765	\$799	\$579	\$748

400% Increase of New IRU Rate

- 7.2% Annual Business Percentage rate used for simple Net Present Value calculation
- \$400.00 Annual IRU Rate per strand-mile per year
- \$300.00 IRU Maintenance rate per strand mile
- \$700.00 Annual Lease Rate per strand-mile
- \$58.33 Monthly Lease Rate per strand-mile

Monthly Lease Rate of Each Fiber Strand on a UC2B Backbone Ring

Ring # 1	Ring #1A	Ring # 2	Ring # 3	Ring #3A	Ring #4	Ring #5	Ring #6	Ring #6A	Ring #7	Ring # 7A
\$957	\$413	\$981	\$1,165	\$502	\$1,324	\$932	\$892	\$932	\$675	\$872

500% Increase of New IRU Rate

- 9.0% Annual Business Percentage rate used for simple Net Present Value calculation
- \$500.00 Annual IRU Rate per strand-mile per year
- \$300.00 IRU Maintenance rate per strand mile
- \$800.00 Annual Lease Rate per strand-mile
- \$66.67 Monthly Lease Rate per strand-mile

Monthly Lease Rate of Each Fiber Strand on a UC2B Backbone Ring

Ring # 1	Ring #1A	Ring # 2	Ring # 3	Ring #3A	Ring #4	Ring #5	Ring #6	Ring #6A	Ring #7	Ring # 7A
\$1,094	\$472	\$1,121	\$1,331	\$573	\$1,513	\$1,065	\$1,019	\$1,065	\$771	\$997

600% Increase of New IRU Rate

- 10.8% Annual Business Percentage rate used for simple Net Present Value calculation
- \$600.00 Annual IRU Rate per strand-mile per year
- \$300.00 IRU Maintenance rate per strand mile
- \$900.00 Annual Lease Rate per strand-mile
- \$75.00 Monthly Lease Rate per strand-mile

Monthly Lease Rate of Each Fiber Strand on a UC2B Backbone Ring

Ring # 1	Ring #1A	Ring # 2	Ring # 3	Ring #3A	Ring #4	Ring #5	Ring #6	Ring #6A	Ring #7	Ring # 7A
\$1,231	\$531	\$1,262	\$1,498	\$645	\$1,703	\$1,199	\$1,147	\$1,199	\$868	\$1,121

Ramp Ups for Wholesale UC2B Core Connections

5/7/12

These charges are in addition to per end-user site charges of:

\$19.99 per month for a 100 Mbps connection

\$99.99 per month for a 1Gbps connection

Dual 1 Gbps Connections

To start, the Provider pays the lessor of the per customer rate or the tiered rate.

Full Monthly Rate	\$1,200
Per Customer Rate	\$10.00
Month 1	\$100
Month 2	\$200
Month 3	\$300
Month 4	\$400
Month 5	\$500
Month 6	\$600
Month 7	\$700
Month 8	\$800
Month 9	\$900
Month 10	\$1,000
Month 11	\$1,100
Month 12	\$1,200

After 12 months the monthly rate moves to the full rate, regardless of customer count.

Dual 2 Gbps Connections

To start, the Provider pays the lessor of the per customer rate or the tiered rate.

Full Monthly Rate	\$1,600
Per Customer Rate	\$13.33
Month 1	\$133
Month 2	\$266
Month 3	\$400
Month 4	\$533
Month 5	\$666
Month 6	\$800
Month 7	\$933
Month 8	\$1,066
Month 9	\$1,200
Month 10	\$1,333
Month 11	\$1,466
Month 12	\$1,600

After 12 months the monthly rate moves to the full rate, regardless of customer count.

Dual 10 Gbps Connections

To start, the Provider pays the lessor of the per customer rate or the tiered rate.

Full Monthly Rate	\$3,600
Per Customer Rate	\$30.00
Month 1	\$300
Month 2	\$600
Month 3	\$900
Month 4	\$1,200
Month 5	\$1,500
Month 6	\$1,800
Month 7	\$2,100
Month 8	\$2,400
Month 9	\$2,700
Month 10	\$3,000
Month 11	\$3,300
Month 12	\$3,600

After 12 months the monthly rate moves to the full rate, regardless of customer count.

Background and Recommendations on Infeasible Rights of Use

Executive Summary

An Infeasible Right to Use (IRU) involves the contractual grant of usage rights in a telecommunications facility. This contractual tool may be used two ways; to sell assets, or to purchase assets. After carefully examining the advantages, disadvantages, challenges, and implications of offering IRUs to sell assets, it was concluded that UC2B should offer managed transport as its primary focus to generate recurring revenue, but maintain IRU contracts for warranted applications that are best served through lasting solutions (i.e. 20-years).

UC2B should sell access and services at sufficient markup above incremental cost to ensure that UC2B can always have revenues supporting continued growth. UC2B should then re-evaluate the product and pricing structures through an annual audit to validate the effectiveness of the then-current revenue model. Services in the meantime must operate under pricing principles based on reasonable, safe estimates. UC2B should be cautious when pricing contracts greater than 5 years and take into account the potential "risks" those contracts could impose on UC2B.

Inversely, the IRU could be a great tool for the integration of community assets offered by several UC2B investors. For example, if UC2B were to purchase the telecommunications assets of the two cities, the county, and Unit 116; an IRU agreement could be used to transfer the operational network facilities currently held by UC2B partners to UC2B, while allowing for the two cities, County, and Unit 116 continued, dedicated and long term use; relieving the partners of ownership's responsibilities, but allowing them the operational benefits they currently enjoy.

It is highly recommended that IRU contracts have associated but separate contracts for defining maintenance responsibilities, access rules, and itemized annual fees that would apply. Each situation is different, so these requirements must be defined, and mirror the objectives of the IRU.

UC2B should proceed with identifying legal counsel for drafting purchase agreements for infrastructure assets held by the City of Champaign, City of Urbana, Urbana School District, and Champaign County. These assets should be purchased by UC2B with the understanding that IRUs will be issued to allow these entities the ability to retain existing network infrastructure as is functionally intact. This same legal counsel should also create dark fiber and IRUs for the original nine investors, plus Champaign County. These IRUS should be structured where all assets are transferred based on 20-year terms, including transfer of ownership (Capital Assets). UC2B should become the managing owner for the infrastructure and will manage documentation, fiber splicing and maintenance repairs.

Beyond the questions and objectives of IRUs is the treatment of network expansion in the form of customer entrances. This will involve new construction and as such require Outside Plant (OSP) engineering and design processes to integrate new construction into the UC2B infrastructure management systems. These mini projects must be designed to UC2B standards as most will become UC2B assets. Questions remain on how lateral extensions and entrances will be financed, who will maintain them and who will manage service delivery. Suggestions for managing these complex issues will be discussed in depth in a later document.

Committee Members:

Bill DeJarnette (Chair), Peter Folk, Bill Gray, Fred Halenar, Ray Mitchell, Pete Resnick, Mike Smeltzer, Tony Vandeventer, Mike Vrem

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IRU background

There are three types of telecommunications agreements:

- a) A standard transport services agreement (contract) provides bandwidth with month to month or annual payment terms. With this agreement, the service provider includes electronics and enforces a specific usage cap. This is the most common type of agreement.
- b) A capacity IRU is a simple lease for a fixed amount of bandwidth, usually over a fixed term equivalent to the life of the electronics providing this service (usually 5 to 10 years). Electronics are usually furnished by the Grantor. Payments are normally made monthly. The terms of this type of agreement generally do not meet the criteria of a capital lease.
- c) A Capital IRU qualifies as a capital purchase of dark fiber or conduit for a specific period of time, usually the useful life of the asset. All the rights of ownership are implied, including exclusive use for any purpose with access at any given location the Grantee has fiber termination points.

The differences between the three types of agreements can be significant for both the Grantor and the Grantee. Capital IRUs imply rights of ownership which allow the grantee to class the fiber as an “asset”, but generally require significant up-front investment. Capacity agreements provide a way for an organization to acquire significant capacity and point to point connectivity, with a relatively long term, but no impact on their balance sheet (payments are accounted for as expenses). Transport agreements provide a simple term contract for the Grantee to sign. Each type carries specific tax and operational benefits that both the Grantor and Grantee will position for.

Capital IRUs

Capital IRUs developed as a way for multiple telecommunications companies to share the up-front cost of satellites, undersea cables, and long-distance telecommunications lines. In IRU parlance, the network owner is the Grantor and the IRU recipient is the Grantee. Capital IRUs normally:

- Identify the assets; generally a small physical part of a network, like a fiber strand between two locations.
- Use language that conveys property rights including asset transfer.
- Include the option to purchase or extend the agreement at the end of the term.
- Require upfront payment.
- Are designed to survive bankruptcy, buy-outs and mergers of the Grantor and/or the Grantee.

Maintenance should be defined through a separate agreement from the actual IRU agreement and may include routine, preventive, and reactive support, or other items as defined in the agreement. More in-depth repairs (fixing cable cuts) may or may not be included in the maintenance fees. Major path changes caused by ROW construction (i.e. moving the conduit and/or cable as may be required) may require Grantees to share costs, based on a prorated cost as a percentage of the Grantor’s total asset.

Who wants IRUs

With the exception of the original UC2B investors (as shown below), IRUs have limited audience. Most are established service providers that are migrating from leased facilities provided by local carriers, for

example ISPs, CLECs, large agencies or regional corporations migrating to a facilities-based network in order to have more control over their service applications. In many cases, this control allows for improved management of the services and creates a firmer hold on managing the expectations of their customers regarding the service level and deliverable bandwidth they consume. Based on these assumptions, here are several examples:

- Access service providers such as AT&T and Comcast have their own infrastructures, but there may be situations in the future where they request facilities they can fully control. Both companies are National Carriers located in Champaign/Urbana, but have not joined with the UC2B discussions.
- Regional carriers are typically long distant service organizations that sell large amounts of bandwidth to select customer sites. Prime examples are Paetec, Sprint, Level3, KDL (Kentucky Data Link, recently purchased by Windstream), and Consolidated Communications. These carriers have access to dedicated cross country fiber that terminates or passes through Champaign/Urbana or UIUC. These organizations may have an interest in an IRU to reach a specific customer site, or POP (Point of Presence) where their services would be distributed locally via another provider such as AT&T or Paetec.
- Large, multi-facility organizations like Carle, Christie, and Busey may see benefit in IRUs to connect their facilities, to give them more control over service level and provide more bandwidth for next-generation applications.

IRU Letters of Intent and other commitments

The following organizations signed letters of intent to purchase Capital IRUs with the following terms:

<u>Entity</u>	<u>Strand miles</u>	<u>IRU Price</u>	<u>Laterals & Entrances</u>	<u>Price for Entrances</u>	<u>Maintenance Fee (\$/yr)</u>
Unit 4 Schools	314.86	\$232,556.51	20	\$ 390,000	\$ 31,055.65
CU Mass Transit District	298.75	\$226,602.53	12	\$ 112,500	\$ 24,910.25
Champaign Telephone Co.	496.97	\$377,697.53	7	\$ 210,000	\$ 41,969.75
Lincoln Trail Library			1	\$ 30,000	\$ 600.00
U-C Sanitary District			9	\$ 120,000	\$ 2,400.00

The following organizations did not sign letters of intent to purchase IRUs specifically, but they committed funds to UC2B based on the value of services they would receive, with the assumption that such contribution would be sufficient to provide for their needs as noted below each:

- The City of Champaign \$ 498,070
Should provide redundant connectivity to all major Champaign facilities (some with full physical path redundancy) including METCAD, and connectivity to the UC2B infrastructure for Internet access (from UC2B or another service provider) and to peer with the ICN. Current estimates are that this connectivity would require access to rack space at reasonable rates in each UIUC Node, 359.53 strand miles of fiber IRUs (all Champaign rings plus one ring passing METCAD), and building entrances and laterals to any currently-unconnected Anchor sites.
- The City of Urbana and Champaign County \$ 345,675
Should provide for continued use of existing fiber infrastructure, new connectivity to facilities not on the current fiber network, "back loops" to add ring protection to the existing network, and

redundant connectivity to the ICN, METCAD, and the County GIS Consortium. Current estimates are that this connectivity would require 182.72 strand miles of fiber IRUs on backbone rings and 261.84 strand miles of fiber IRUs on interior cables, in addition to building entrances and laterals to any currently-unconnected Anchor sites.

- The University of Illinois \$ 510,971
Should connect existing remote sites to the UIUC network, and provide redundant connectivity to METCAD and the County GIS Consortium. Current estimates are that this connectivity would require 496.97 strand miles of fiber IRU.
- District 116 Schools (In-Kind) \$ 298,075
Should provide for continued use of existing fiber infrastructure, new connectivity to 1-2 facilities not currently on the network, “back loops” to add ring protection to the existing network, and redundant connectivity to the ICN. Current estimates are that this connectivity would require 118.92 strand miles of fiber IRUs on interior cables, 1-2 building entrances, and 1-2 new laterals.

The County of Champaign did sign a letter of support for UC2B, but did not sign a letter of intent. Champaign County is a part owner of the City of Urbana/Unit 116 School District network, so IRUs to support their continued use of their infrastructure have been included with the City of Urbana’s IRUs above.

IRU sale concerns and responses

There are two distinct views regarding IRUs:

- The first is that IRUs provide a fast track to create dedicated broadband connectivity by eliminating major roadblocks with construction and permitting.
An example is providing Comcast an IRU for an “overbuild” of a route for service expansion to improve delivery speeds and expand a service area.
- The second view is that IRUs create direct competition for UC2B.
The above example could create competition if UC2B were to provide a triple-play bundle.

As an illustrative example, in the late 1980’s and throughout the 1990’s independent service providers used IRUs to target high-value customers of the Regional Bell Operating Companies (RBOC). This gave those independent providers quick access to market share and bolstered competition, primarily in the Long-Distance Voice market. The telecom term for this process was “by-pass,” because it bypassed the normal Franchise process. By-pass grew, with the FCC’s approval and the passage of the “Telecom Act of 1996”, and the result is today’s market where Long Distance service is no longer a strong profit center and many business and residential plans provide free LD. The clear winner here is the consumer; the clear losers are those companies that invested millions in infrastructure, betting on a pot of “LD” gold.

The moral of this story is that situations change, products change and customer requirements change. What looks like a great idea today may prove to be tomorrow’s unintentional challenge. To the extent that those changes benefit consumers without hurting UC2B’s long-term interests, they are a win. But if they threaten UC2B’s long-term viability, any consumer benefits need to be weighed against that cost.

Some questions arose regarding IRUs and their impact on UC2B, which we have answered below:

- **Will the sale of IRUs create a shortfall of fiber strands for growing UC2B services?**

This Committee believes it will not, based on the following. First, the UC2B Design Review released by Shive-Hattery on February 7, 2011 indicated a 288 count fiber is sufficient for the

next ten years. Second, at the request of the UC2B Policy Committee, the original design was modified to increase the size of manholes on the fiber rings to provide physical space to support oversized splice cases and cable storage. If capacity were to become a problem, this will allow fiber expansion on the rings without additional boring.

- **How would an IRU sale impact UC2B revenue?**

Capital IRUs are front loaded, thus providing inflated cash flow the year of the sale. This can be helpful when trying to finance expansion of infrastructure, or challenging in that it would require fiscal discipline to support ongoing operations.

Maintenance agreements go hand in hand with IRUs and provide UC2B with annual revenue which—when priced appropriately—should support day to day maintenance on the IRU Grantee’s portion of a fiber route.

Conversely, in most cases IRUs bolster competition for UC2B’s transport services. In an extreme case where such competition dominated the market, UC2B might no longer have sufficient demand for transport services to support traditional transport services.

Despite the risks and in light of benefits Capital IRUs can provide for expansion, we believe that the market for Capital IRUs is small enough that such risks and benefits are manageable. UC2B should attempt to maximize its revenue, short and long term, by offering traditional transport when it makes sense, but IRUs should be an option when it does not.

- **Are legal fees to create IRUs a concern?**

The legal fees to prepare the IRUs associated with matching funds are covered within the grant. Any new IRU legal fees would not be covered by the grant and would need to come out of operating income or from another source (e.g. Grantee pays all legal preparation fees).

IRU legal fees will always be expensive as there are limited attorneys having this experience, and while there are many similarities from agreement to agreement each IRU must be tailored to the needs and wants of the Grantor and Grantee, which extends billable hours. A new IRU agreement must be prepared for each asset sale.

Conversely, for the most common customer term contract, UC2B will pay to have one contract prepared that will fit the requirement for many FTTP sales, possibly in the thousands.

- **Is UC2B allowed to sell IRUs on fiber strands?**

For UC2B to sell an IRU, NTIA ownership must be recognized for the projected life of the asset. NTIA is expecting grant awardees to “self certify” that they are following the rules and terms of the grant. NTIA has an internal document that addresses potential issues with IRUs, but at this time this document is for internal use only, not for use by grant recipients. NTIA has implied that grant recipients should not lease more than 50% of their fiber strands. UC2B’s design plan currently is far below this threshold.

The IRU is a necessary tool, but one that should be used with caution: IRUs were critical to allowing UC2B to generate the 20% matching funds required to win its initial grant, and they may allow UC2B to generate short-term revenue for growth, but the long-term affect can create unintentional challenges. **UC2B’s first priority should be to create a financially secure and enduring transport revenue model that provides predictable revenue to support and expand network operations.** Our recommendation is for UC2B to reserve the sale of IRUs to situations where (a) traditional transport services are not appropriate, and (b) the sale can be implemented with limited future revenue impact.

IRU and other services recommendation

The financial commitments of the founding investors are the reason that UC2B has come this far. IRUs are a necessary component of creating capital for this start up. The values assigned to these initial IRUs should be considered foundation pricing and if future IRUs are contemplated, the pricing for future IRUs should be at rates that are competitive while supporting the long term viability of UC2B.

Recommendation #1:

UC2B's primary objective should be to offer managed transport services (Active Ethernet) with 5-year and shorter terms providing tiered services that create monthly-recurring revenue. Service delivery should focus on capacity based product selections. This would include: per-megabit transport or per-wavelength transport.

Recommendation #2:

UC2B should sell access and services at sufficient markup above incremental cost to ensure that UC2B can always have revenues supporting continued growth. UC2B should then re-evaluate the product and pricing structures through an annual audit to validate the effectiveness of the then-current revenue model. Services in the meantime must operate under pricing principles based on reasonable, safe estimates. UC2B should be cautious when pricing contracts greater than 5 years and take into account the potential "risks" those contracts could impose on UC2B.

Recommendation #3:

UC2B should proceed with identifying legal counsel for drafting purchase agreements for infrastructure assets held by the City of Champaign, City of Urbana, Urbana School District, and Champaign County. These assets should be purchased by UC2B with the understanding that IRUs will be issued to allow these entities the ability to retain existing network infrastructure as is functionally intact. This same legal counsel should also create dark fiber IRUs for the original nine investors, plus Champaign County. These IRUs should be structured where all assets are transferred based on 20-year terms, including transfer of ownership (Capital Assets). UC2B should become the managing owner for the infrastructure and will manage documentation, fiber splicing and maintenance repairs.

Recommendation #4:

This committee recommends that UC2B investors be provided fair share compensation for new attachments to any lateral constructed through private funding. If and when UC2B becomes financially strong, it would be advantageous for UC2B to be the investor in lateral construction, but even in that case, given that rights of way are public, there may be private initiatives that should be encouraged to the extent they can benefit UC2B. The details of these policies will require additional work, to be completed by this subcommittee as time is available.

Further reading

Mike Vrem's IRU Power Point

Pages 250-261 from the initial UC2B application section 5-1

Glossary of Terms

Competitive Local Exchange Carrier (CLEC): competitive local exchange carrier (CLEC), in the United States, is a telecommunications provider company (sometimes called a "carrier") that competes with other, already established carriers (generally the incumbent local exchange carrier (ILEC)).

Construction Standards: The construction standards are the construction guidelines created by members of UC2B (both cities and University) that compiles a common body of construction standards that contractors and designers must follow for the construction and restoration of communications facilities within the project Rights of Way (ROW).

Entrance Facility: In telecommunications, *Entrance facility* refers to the entrance to a building for both public and private network service cables (including antenna transmission lines, where applicable), including the entrance point at the building wall or floor, and continuing to the entrance room or entrance space.

Grantee: One to whom a grant is made, in this case, this applies to use with an IRU agreement granting ownership rights to conduit or fiber optic strands.

Grantor: A legal term conveying, for the party, a grant of title or encumbrance, as it applies to an IRU granting title to conduit or fiber optic strands to or from UC2B.

Indefeasible Rights to Use (IRU): Indefeasible right of use (IRU) is a contractual agreement between the owners (Grantor) of a communications facility, such as conduit or a fiber optic network, and a client (Grantee).

Internet Service Provider (ISP): An ISP is a company that offers its customer's access to the Internet. The ISP connects to its customers using a data transmission technology appropriate for delivering Internet Protocol packets or frames, such as dial-up, DSL, cable modem, wireless or dedicated high-speed interconnects.

Lateral: A telecommunications term defining a conduit path extension, extending from a backbone (ring), and linking to multiple entrance facilities along a street or ROW, providing customers access (i.e. FTTH) connectivity to the UC2B network.

Managed Transport Service: Managed transport service identifies a bundled digital delivery facility (fiber optic) with electronic equipment managed by UC2B, to the site and/or customer. UC2B is accountable for the functionality and performance of the service, as well as delivery of other applications over this facility, which may be provided through multiple Retail Service Providers (RSPs), to this customer or site.

Right of Way (ROW): Right of way is in most cases a strip of land bordering streets or roads that is controlled by: in this case, the Cities, University or State of Illinois Department of Transportation. It is within this strip of property where UC2B will locate underground conduit and access points for the distribution and maintenance of fiber optic facilities that will encompass the UC2B network.



NTIA and Grant Update – 5/18/12

We had our regular call with NTIA last Wednesday morning. All is smooth on the NTIA front.

At the request of our attorney handling the IRU's - Jim Baller, I had submitted the Private Expansion Policy that you approved at the last meeting to our NTIA program officer for review, and much of the call was spent clarifying that policy and answering his questions. Yesterday he emailed me that NTIA had no concerns with any aspects of that policy.

There has been much recent activity on the legal front. In this packet you have drafts of the IRU and Dark Fiber Maintenance Agreements as well as a summary from Jim Baller. Once you have approved those drafts, the plan is to send them out to all of the investor IRU holders for their simultaneous review and comments, and then to craft final versions that incorporates all of their comments (as appropriate) into two basic agreements that they each will be asked to sign with no individual negotiations or changes.

The Residential-Business-Anchorage Institution retail service agreement is also close to complete. There will be a one-page form that customers will sign that references a much longer and more formal agreement on our web site (that will also be available on paper.) We will be able to take orders over the Internet, on a canvasser's iPad, as well as on this single-sided, simple order form.

We had three responders for our FTTP construction RFP. The selection committee is scheduled to meet with one of those responders on Monday. If all goes well we will have a contractor to recommend on Thursday.

The bid for the materials for the FTTP installation went out earlier this week. It is due on the 30th.

Diane Kruse is close to being done with the Call Center RFP, and is working on the field support RFP. They could be released as early as next week.

Construction is moving right along. John Burns is a few bores away from being complete with boring in Urbana. Western is close to 90% done with boring in Champaign. Both will be installing manholes, doing restoration and pulling fiber next week.

On Thursday night, I will be joining you from Washington D.C., where on Wednesday there is an announcement planned that will be of interest to those who like to cook with Secret Sauce. Talk to you then.

Mike

From: Peter Folk <peter@volo.net>
To: Deborah Frank Feinen <dffeinen@lawonclark.com>
CC: "Legner, Teri" <teri.legner@ci.champaign.il.us>, Brandon Bowersox-Johnso...
Date: 5/18/2012 1:08 PM
Subject: Urbana testbed for new deployment methods
Attachments: signature.asc

For consideration by the UC2B Policy Committee:

Over the last few months, in anticipation of an opportunity for larger-scale buildout of UC2B to residential areas, Volo has been exploring methods for fiber deployment that will minimize the cost per home passed and per subscriber (in order to maximize the potential number of subscribers), while still delivering robust, active-ethernet, gigabit-capable service.

Our method uses primarily-underground infrastructure, like the rest of UC2B, but uses some cost saving measures in the neighborhood cabinets, handholes (which we replace in some cases with small pedestals), electronics, and labor pool (creating full-time staff positions in-house instead of contracting the work out). The result is a total cost per home passed of, we hope, about \$150, and additional cost of only \$500 per subscriber. (Both numbers are a fraction of current estimates.)

We would like UC2B's support in developing this model in the form of a testbed in Urbana based on existing Urbana infrastructure (which will eventually be donated to UC2B). We are asking for UC2B's endorsement of Urbana giving Volo access to two strands of its existing infrastructure (infrastructure that will eventually become part of UC2B, but which is independent of the new fiber being deployed), and of Volo working with Urbana to select and roll out a testbed network serving up to 200 homes in up to 4 neighborhoods.

While the details are TBD, Volo would commit to operating the testbed as an Open Access network, and providing UC2B with monthly updates on the status of that network and other reports or access as needed to provide UC2B with useful information about the testbed.

Specifically, Volo asks that the UC2B Policy Committee pass the following resolution:

"The UC2B Policy Committee endorses the City of Urbana providing Volo Broadband with access to existing Urbana fiber infrastructure, and otherwise working with Volo in the development of a testbed network."

Supporting this testbed will:

- 1) Free Urbana to move forward with giving Volo access to two strands of its existing infrastructure if they so desire
- 2) Demonstrate UC2B's position as a thought leader in affordable broadband
- 3) Make it possible (but not certain) for UC2B and C-U to be included in a grant application to the Illinois Gigabit Communities Challenge
- 4) Help improve the leverage of any additional funding for UC2B buildout in Champaign-Urbana by lowering the cost-per-house-passed
- 5) Support the development of a local trained workforce capable of

further UC2B buildout, and

6) Provide a testbed where new ideas and services can be tried, by UC2B, Volo or others.

Supporting this testbed will NOT:

- 1) Commit Urbana to any action. The City of Urbana staff and/or Council would still have to approve for Volo to move forward
- 2) Commit any public or grant funds to the project
- 3) Commit any grant-funded infrastructure for use in the testbed

(The last two may come up later if the testbed is successful.)

Feel free to direct questions to Peter Folk by email (peter@volo.net) or phone (217 721-3893). We hope for your support.