Barrys Decagon and Network Topology Design

By

Barry L. Crouse

Introduction

Today is 03/15/2014 University Place, Washington. I would like to take the time to thank each and everyone of you for reading this Scientific work. I would like to discuss my Decagon Network Topology Design. The 1st chapter presents charts and provides a overview of what features are present with Linear and Circular motion. The 2nd Chapter present a Mathematical Equation demonstrating the concept of Energy being dynamic and Non-Symmetrical and finally the 3rd chapter presents a brief summary.

I hope that you will find this work challenging and complex as it was intended to be.

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Decagon Topology Network Chart 1-A



External Node Points

Features of Decagon Topology Network Chart 1-A

I would now like to go over the chart labeled 1-A. I would first like to define the Geometric plane. A Decagon is a 10 sided polygon as stated by the search engine Ask.com.

I would now like to go over the chart and highlight some of the features. As you can see I have a Linear based Network using straight lines with angles. Please observe there are 6 Internal Node points and 4 external node points. The Internal Node points have two different paths it can choose if you will observe two things is the following:

- 1). The Internal Node Points converge on a External Node Point
- 2). Some Internal Node points have to use another Internal Node point to access the Eternal Node Point commonly referred to shell within a shell.

The Decagon has 4 Areas of space that is voided and not being utilized which brings us to our next chart. I will be applying curvature to fill this voided space that is not being utilized properly this means Linear and Curvature are being applied in this Network Design Topology.

Decagon Topology Network Chart 2-A



Area 3 Space

Features of Decagon Topology Network Chart 2-A

I would now like to go over the chart and highlight some of the features. As you can see I have a Linear and Curvature based Network using both Circular and Linear. Please observe there are 6 Internal Node points and 8 external node points. The Internal Node points have two different paths it can choose depending on the metric based path in relations to heat and throughput traffic. The external node points utilize two points with the idea of shelling within a shell example a Internal node point converges on the external node point within the ring network before it traverses into the external environment it must pass through a gateway creating the following:

Internal to external creates 1st shell 1st shell to Gateway creates 2nd shell

I would now like to provide some features of this Network Design

- 1). 4 Areas of space
- 2). 6 Internal Node points
- 3). 8 External Node points
- 4). Linear and Curvature Topology
- 5). Network has a spatial boundary

In the next chapter, I will present some Mathematical Equations to measure the amount of energy dealing with Chart 2-A.

Chapter 2

Mathematical equation of Decagon Network Topology

I would like to begin this chapter by 1st creating a table using 2-A assigning bit strength and variables to be used and than I will present the equation to be used and How I will adapt it to this Network Topology.

Area 1 Space

Internal Node Points

 1^{st} node point = 2048 = 1a

External Node point

 1^{st} node point = 1024 = 1b

 2^{nd} node point = 1024 = 2b

Area 2 Space

Internal Node Points

 1^{st} node point = 3072 = 2a

 2^{nd} node point = 3072 = 3a

External Node Points

 1^{st} Node point = 1024 = 3b

 2^{nd} Node point = 2048= 4b

Area 3 Space

Internal Node Point

 1^{st} node point = 4096 = 4a

External Node Points

 1^{st} Node point = 2048 = 5b

 2^{nd} Node point = 2048 = 6b

Area 4 Space

Internal Node Points

 1^{st} node point = 5120 = 5a

 2^{nd} node point = 5120 = 6a

External Node Points

 1^{st} Node point = 3072 = 7b

 2^{nd} Node Point = 2048 = 8b

Total Area of Space = 1

Area 1	= .25
Area 2	= .25

Area 3 =.25

Area 4 = .25

I will now begin the Mathematical equation by using the Barrys Cosmological Dynamic binary equation. The Equation is as follows:

```
BCD = \sqrt{(L * cu) 2^{nd} power + (cu *L) 2^{nd} power / q1}
/ q2
/ q3
/ q4
```

The Equation as adapted to it's environment is as follows

- 1). q1 q4 shows the Area's of space
- 2). Internal Node points are along the Decagon polygon and are linear based
- 3). External Node points are accessing the Ring and are curvature based.

You may ask why the 1st External node point is along the decagon and not assigned linear based is because the gateway is along the curvature and translates the 1st external node point to curvature because it is accessing the gateway and is directly connected to one another and has a dependency relationship. Please note a important point I set the total Area of space equal to 1 and each area equals .25 for the following reason:

1). To show even if their are constant variables my energy within each area will be Non-Symmetrical because of the Internal node points and their bit strength this is similar to external Atomic spins using a 1/4 turn with a area of space in a constant state.

I will now begin the calculations by first setting up a table and than plugging in the values

Tables

Area of space #	Internal/External	Number of Paths	Total Bit strength	Area of space energy
1	Internal	1	2048	.25
1	External	2	2048	.25
2	Internal	2	6144	.25
2	External	1	3072	.25
3	Internal	1	4096	.25
3	External	2	4096	.25
4	Internal	2	10240	.25
4	External	1	5120	.25

I will now begin the calculations using the Equation

$$BCD = \sqrt{(L * cu)} 2^{nd} power + (cu *L) 2^{nd} power / q1 / q2 / q3 / q4$$

Area 1 =
$$\sqrt{(2048 * 2048)} 2^{nd}$$
 power + (2048 * 2048) 2nd power / .25

Area 1 = 2048 * 2nd power + 4194304 * 2nd power / .25

- Area 1 = 4194304 + 17592186044416 / .25
- Area 1 = 17592190238720 /.25
- Area 1 = 70368744177664

Area 2 = $\sqrt{(6144 * 3072)}$ 2nd power + (6144* 3072) 2nd power / .25

Area 2 = 4344.46406361 * 2nd power + 18874368 * 2nd power / .25

Area 2 = 18874367.999998714 + 356241767399424 /.25

- Area 2 = 356241786273791.999998714 / .25
- Area 2 = 1424967145095167.999994856
- Area 3=` $\sqrt{(4096 * 4096)} 2^{nd}$ power + (4096 * 4096) 2^{nd} power / .25
- Area 3 = 4096 * 2nd power + 16777216 * 2nd power /.25
- Area 3 = 16777216 + 281474976710656 / .25
- Area 3= 281474993487872 / .25
- Area 3 = 1125899973951488
- Area 4 = $\sqrt{(10240 * 5120)} 2^{nd}$ power + $(10240 * 5120) 2^{nd}$ power / .25

Area 4 =	7240.77343935 * 2 nd power + 15360 * 2 nd power / .25
Area 4 =	52428799.999996428 + 235929600 /.25
Area 4 =	288358399.999996428 / .25
Area 4 =	1153433599.999985712

The calculations for Area of space is completed. I will now place the values into a table for easier reading.

Table For Area's of Space

- Area 1 70368744177664
- Area 2 1424967145095167.999994856
- Area 3 1125899973951488
- Area 4 1153433599.999985712

I will now present my final thoughts on this work in the next chapter.

Chapter 3

Final Thoughts

Final Thoughts

The 10 Sided Decagon Network Topology incorporated Linear and Circular motion and spacing also utilized were Internal and External node points. The Internal Node points converged on a External Node point utilizing a gateway circular Ring network as a means of translation within a confined area of space. A constant variable was applied in the Area of space as bit strength increased so did the area area of space until it reached a point where decay starts to begin this was shown on the table of area spaces.

If I observe the following, I noticed that the Area's of space increased as bit strength was increased as well. Area's of space reach a point where it begins to decrease. My observations look like energy increases up until it reaches a point and than begins to decay if constant variables are applied to the area's of space. This also shows that Energy is Dynamic and Non-Symmetrical even if I apply a constant variable in a 10 sided polygon Decagon.

I would like to once again Thank you for taking the time in reading this scientific work and I hope that you received something out of this.

If you would like to see further Scientific works that I have been completed over the years please goto <u>http://www.PublishResearch.com</u>

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Barry L. Crouse Ph.d Computer Information Sciences

Associate of Science Mechanical Engineering technology

E-mail <u>barry.crouse@yandex.com</u>

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