



OREGON HEALTH NETWORK

Orientation 3: Go-Live

Agenda

1. ***Welcome & FCC Project Status***
2. ***Reading NOC Reports***
3. ***FCC Reporting Requirements***
4. ***Life after the RHCPP***
5. ***Recap & Next Steps***
 - *Next RHCPP orientations*
 - *Resources*

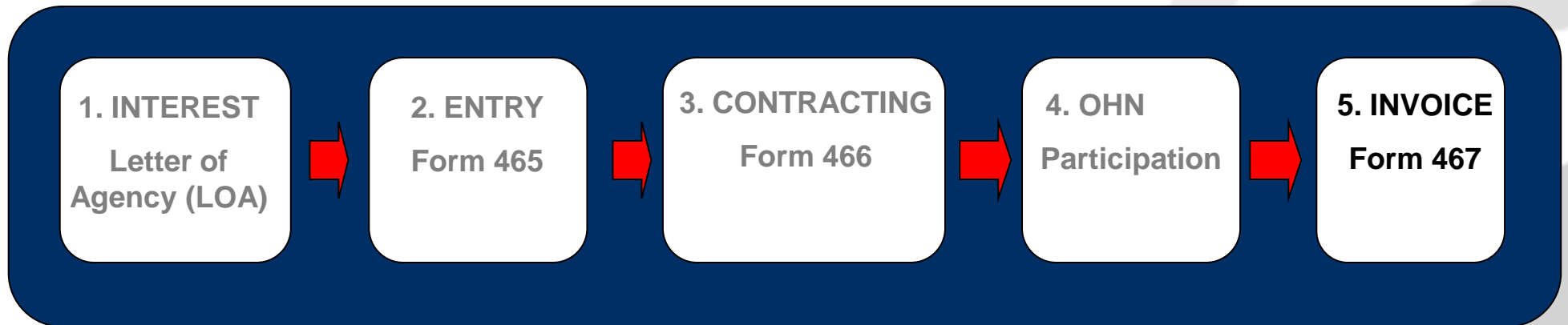
Oregon Health Network

Welcome & FCC Project Status Overview

Kim Klupenger, Operations Director



FCC RHCPP: Project Status Overview



Your are *HERE!*

- ✓ You have participated in an RFP
- ✓ You have received proposals (bids) from vendors
- ✓ A winning bid has been selected
- ✓ You have an approved vendor contract
- ✓ Your installation is in the works or completed
- ✓ A leaf node has (recently) been installed on your site by Easystreet Online Services and you're actively being monitored by the NOC

OHN's Network Operations Center

Introduction to the value and benefits of the NOC

Monica Koiv, Account Manager

The OHN NOC: We're looking out for you!

1. ***Proactively monitor all OHN connections***

- Open trouble tickets with vendors if a problem is detected
- Monitors your network 24/7, 365 days a year

2. ***Pinpoint problems in a multi-network environment***

- Minimizes vendor finger pointing in event of a problem and drastically improves response times

3. ***Holds vendors to their Service Level Agreements (SLAs)***

- The OHN NOC is an independent monitoring system and is specifically designed to monitor the quality of the connections
- The OHN NOC will provide a monthly network “health” report to all OHN members

4. ***Network Performance Reports***

- Monthly reports available on secure site portal
- These reports allow you to view the availability, packet loss, jitter, Mean Opinion Score (MOS), and Round Trip Time (RTT)
- These empower the provider sites with detailed non-biased views of their connection and if vendors are living up to their SLA standards.

Using Your NOC Reports: Posted monthly on your portal

What is the value of these reports?

- The OHN monitoring system only measures vendor performance.
- The reports provide a 3rd party non-biased view of your OHN vendor performance that does not include site related outages or issues.

How often should I check these reports?

- It is important to always review these reports on a monthly basis since most SLA contracts specify a time limit for compensation claims.

How should I use these reports?

- Gain a detailed view of your OHN vendor's performance.
- Determine if your contractual SLA standards are being met or if you are eligible for compensation as per your contract.
 - Please note that any such claims must come from the participating OHN site directly since OHN is not a party to your vendor contract.

Whom should I contact if I have questions?

- Contact the OHN NOC directly at 503-213-5400 or at ohnnoc@easystreet.com

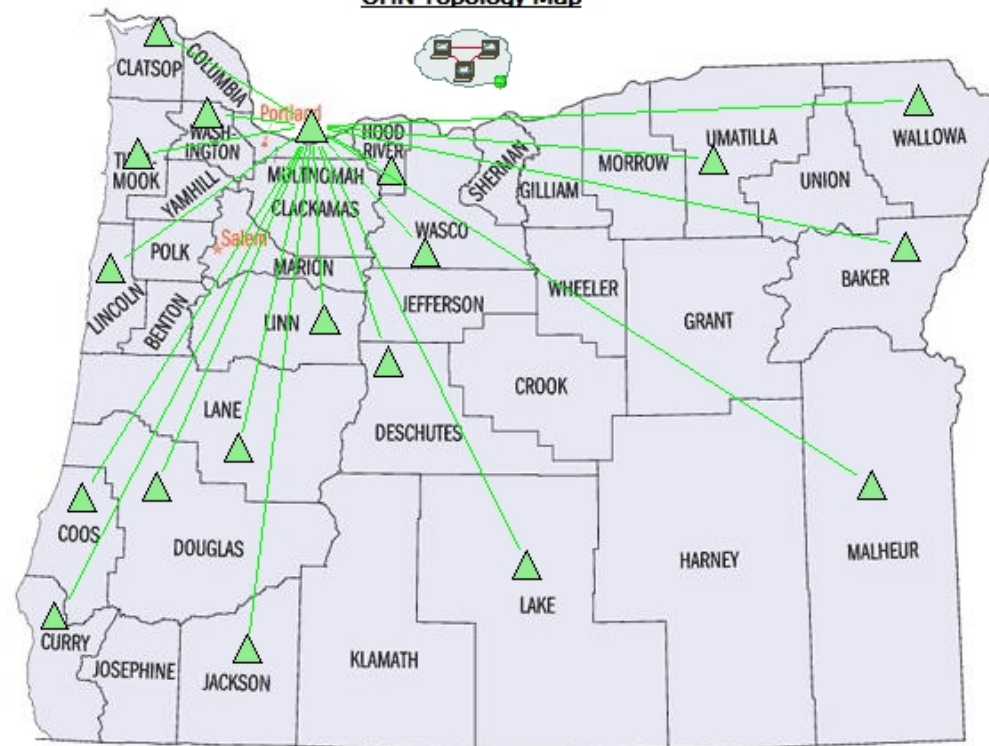
NOC Reports

1. Overview

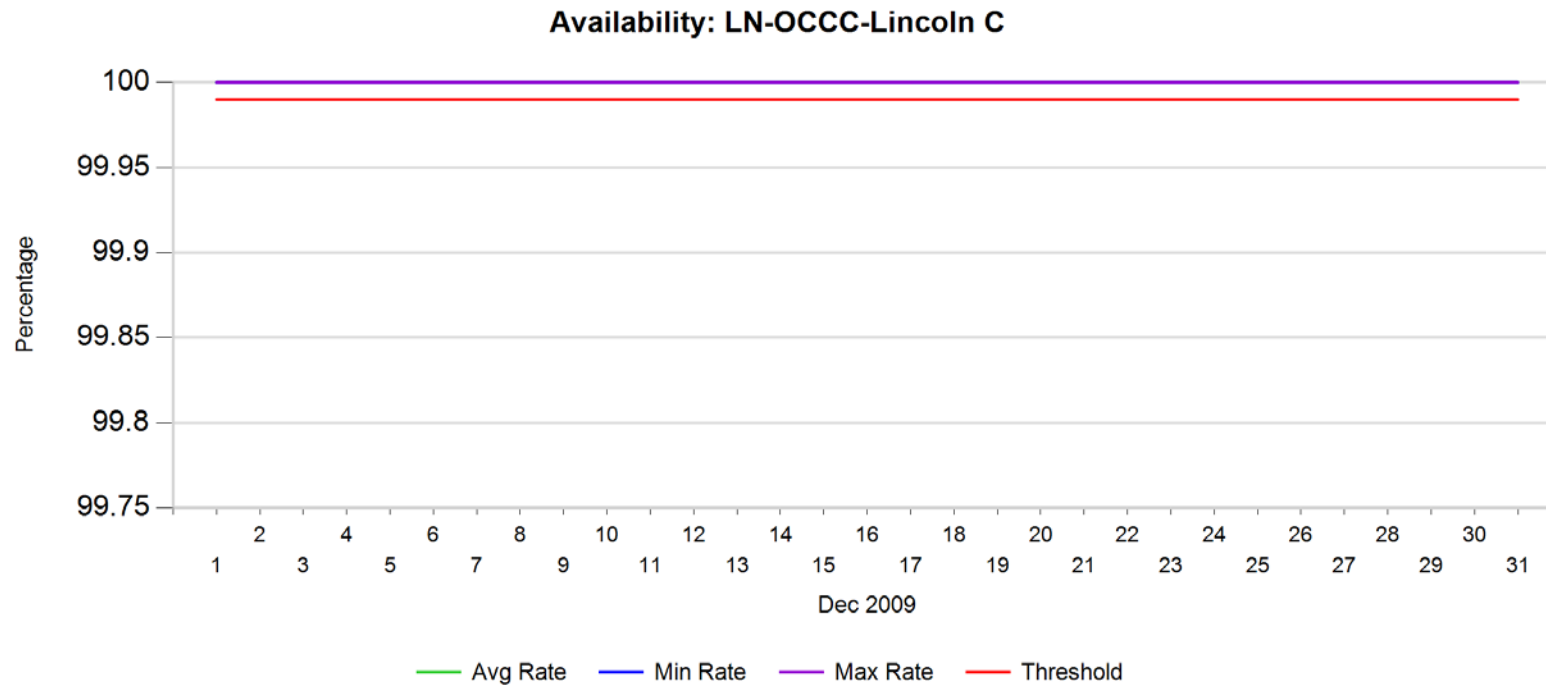
- You will begin to receive these after the 1st month via email
- Cover all metrics mandated by your Vendor Service Level Agreement (SLA)

OHN

OHN Topology Map



Availability



What is availability? Availability indicates the ability of the OHN NOC to “see” your leaf node.

Why is it important? If the NOC cannot see your leaf node, it means the NOC is receiving no data from you.

When should I worry? Availability should be 100 percent at all times. Anything less indicates a problem.

Mean Opinion Score (MOS)

What is a MOS score?

Mean Opinion Score is a measure of voice quality over a given link. On a scale from 1 to 5, it is the resulting calculation taken from several data sources.

Why is it important?

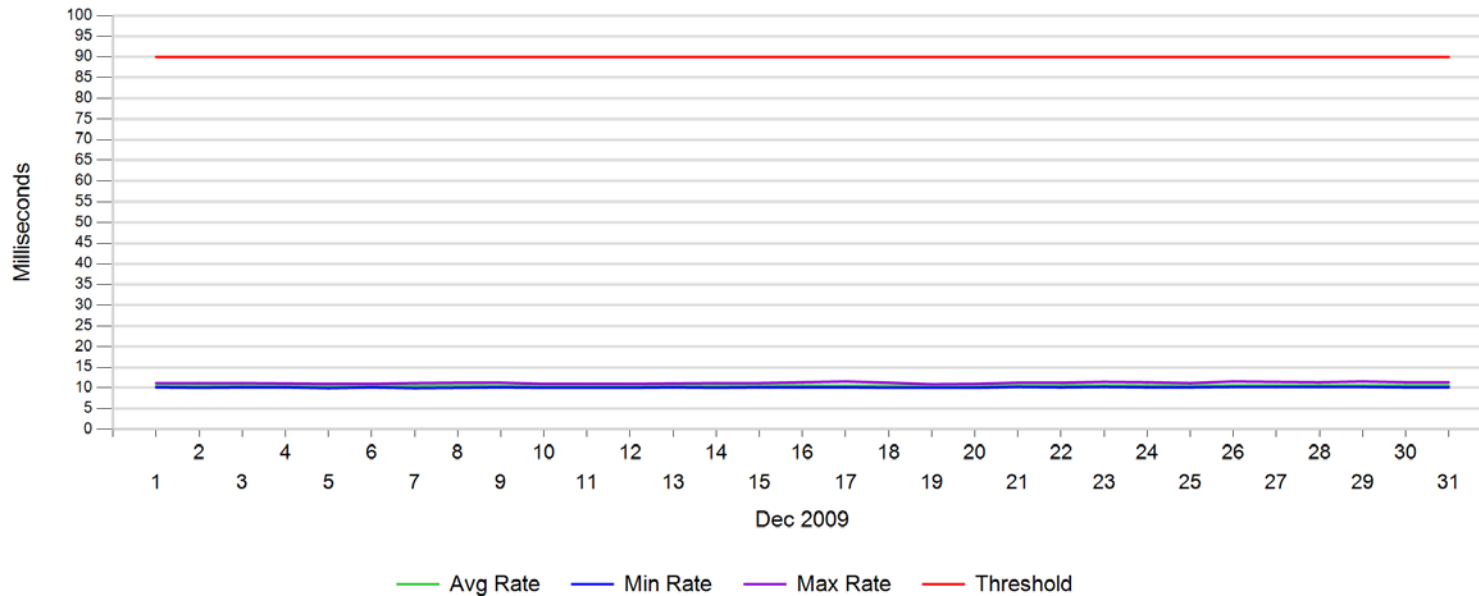
MOS represents what the experience will be like if you send voice or video over the network.

When should I worry?

As indicated by the red line in the graph to the left, a score of less than 4 means voice quality will be degraded.

Round Trip Time (RTT)

RTT: LN-OCCC-Lincoln C



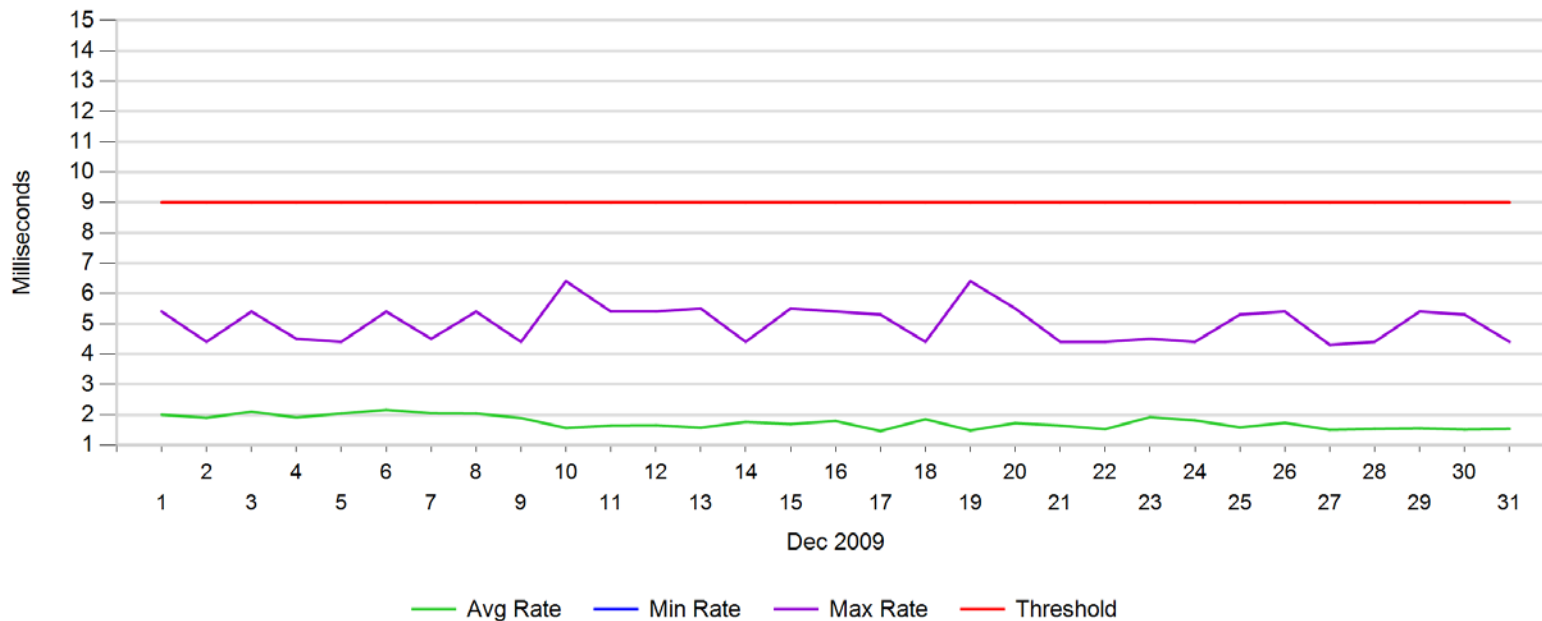
What is RTT? Round Trip Time (RTT) is the time it takes a signal to leave your leaf node, reach its destination and return to your leaf node.

Why is it important? RTT directly influences how quickly interactive applications respond, such as audio and video transmissions.

When should I worry? As indicated by the red line in the graph to the left, RTT approaching 90 milliseconds indicates there is a problem that should be analyzed and resolved.

Jitter: Leaf Node to Exchange/Exchange to Leaf Node

Jitter (Leaf Node to Exchange): LN-OCCC-Lincoln C



What is Jitter?

Jitter is the variation in the time between packets being sent and their arrival. Jitter can be caused by network congestion, timing drift, or route changes.

Why is it important?

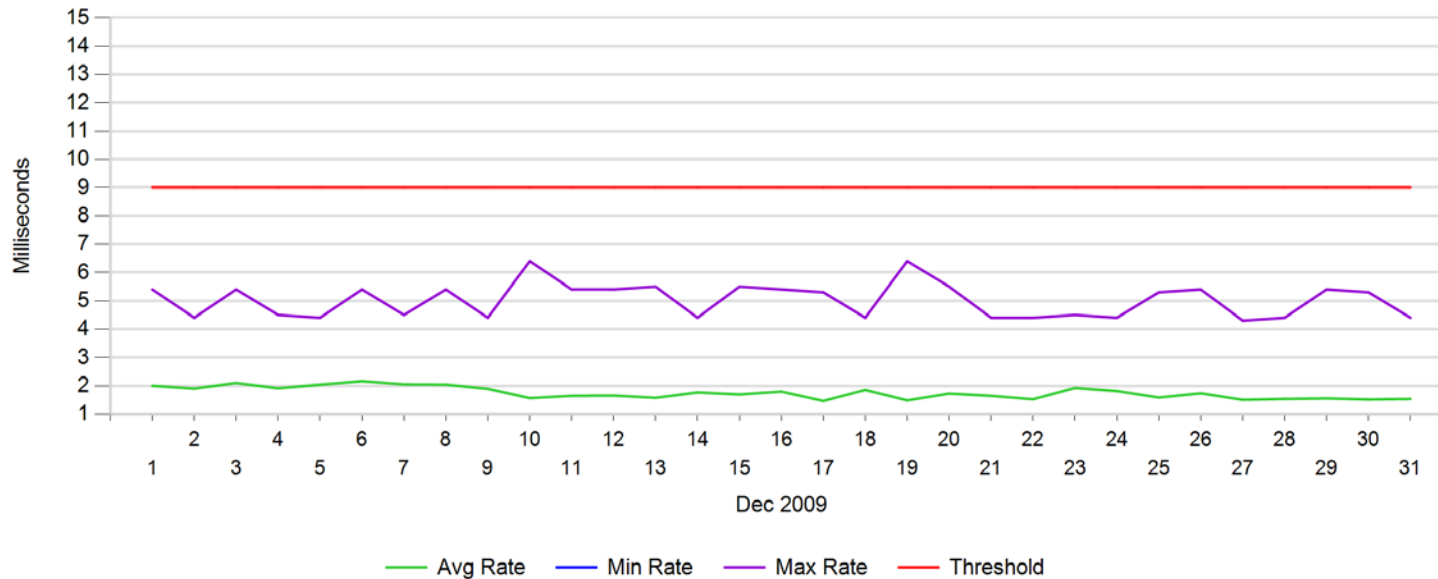
When Jitter occurs, the packets are delivered in the wrong order and, as a result, video and voice communications become garbled and difficult to understand.

When should I worry?

As indicated by the red line in the graph to the left, Jitter approaching 9 milliseconds is a problem that should be analyzed and reviewed.

Packet Loss: Leaf Node to Exchange/Exchange to Leaf Node

Jitter (Leaf Node to Exchange): LN-OCCC-Lincoln C



What is packet loss? A packet is the envelope which contains data to be transmitted over a network. Packet loss is the probability that a packet will be lost in transit from source to destination.

Why is it important? Lost packets require retransmission, which makes data transfer inefficient. The loss of information at the receiving end could result in static in audio or video transmissions.

When should I worry? As represented by the red line in the graph to the left, steady or frequent packet loss of 0.3 percent or more indicates a problem.

OHN NOC Technical Report



SERVICE PROVIDER PERFORMANCE - MONTHLY

Month	Node Name	Unscheduled Outage Minutes	Availability	Jitter DS			Jitter SD			MOS			Packet Loss DS			Packet Loss SD			RTT		
			>= 99.99	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX	MIN	AVG	MAX
May 2011	Asante RVMC	0	100.00	0.00	2.73	7.50	0.00	1.95	6.50	4.34	4.34	4.34	0.00	0.00	0.00	0.00	0.00	0.00	14.90	15.44	16.50
	Bay Area Hospital	25	99.94	0.00	2.86	9.80	0.00	1.95	6.60	4.34	4.34	4.34	0.00	0.00	0.00	0.00	0.00	0.00	10.10	10.91	11.60
	Bay Area Hospital-WIC	0	100.00	0.00	2.66	55.00	0.00	1.51	5.50	0.00	4.33	4.34	0.00	0.00	0.00	0.00	0.00	0.00	10.00	10.71	62.60
	BMCC-Baker City	0	100.00	0.00	2.88	8.80	0.00	2.17	7.70	4.34	4.34	4.34	0.00	0.00	0.00	0.00	0.00	0.00	11.30	17.87	19.20
	BMCC-Pendleton	0	100.00	0.00	2.66	7.60	0.00	1.99	5.60	3.50	4.32	4.34	0.00	0.15	10.00	0.00	0.11	10.00	14.90	15.51	16.20
	CCC-Harmony	90	99.79	0.00	3.27	8.89	0.00	1.62	4.50	0.00	4.33	4.34	0.00	0.00	0.00	0.00	0.00	0.00	3.90	4.69	18.70
	Coastal Family Health	0	100.00	0.00	2.80	7.70	0.00	3.11	29.20	0.00	4.33	4.34	0.00	0.00	40.00	0.00	0.01	40.00	5.00	5.82	53.33
	Columbia Memorial	0	100.00	0.00	3.06	576.30	0.00	1.92	5.50	4.34	4.34	4.34	0.00	0.00	0.00	0.00	0.00	0.00	4.69	5.32	57.50
	Coquille Valley	0	100.00	0.00	2.81	7.50	0.00	1.76	5.50	3.50	4.33	4.34	0.00	0.00	10.00	0.00	0.00	0.00	10.80	11.39	12.10
	Curry General Hospital	0	100.00	0.00	2.58	7.80	0.00	1.74	5.50	0.00	4.33	4.34	0.00	0.00	0.00	0.00	0.00	0.00	11.60	12.33	13.10
	GOBHI-Boardman	10	99.97	0.00	2.83	29.10	0.00	3.32	46.71	0.00	4.33	4.34	0.00	0.02	70.00	0.00	0.00	20.00	16.29	18.00	192.00
	GOBHI-CCMH-McNulty	0	100.00	0.00	2.24	7.40	0.00	2.24	6.50	4.34	4.34	4.34	0.00	0.00	0.00	0.00	0.00	0.00	9.10	9.90	23.10
	GOBHI-Clatsop	0	100.00	0.00	2.77	7.70	0.00	1.62	5.50	3.50	4.33	4.34	0.00	0.00	0.00	0.00	0.00	10.00	4.50	5.27	5.90
	GOBHI-Comm	0	100.00	0.00	2.72	9.00	0.00	2.01	6.70	4.34	4.34	4.34	0.00	0.00	0.00	0.00	0.00	0.00	8.10	8.74	10.00
	GOBHI-Grant County	0	100.00	0.00	7.95	22.00	0.00	8.89	44.60	0.00	4.33	4.34	0.00	0.00	0.00	0.00	0.00	10.00	44.20	46.23	53.50
	GOBHI-Lakeview	0	100.00	0.00	2.42	6.70	0.00	1.60	5.60	0.00	4.33	4.34	0.00	0.00	0.00	0.00	0.00	0.00	13.70	14.34	15.00
	GOBHI-Ontario	0	100.00	0.00	2.81	34.80	0.00	2.23	7.60	0.00	4.33	4.34	0.00	0.00	0.00	0.00	0.00	10.00	15.20	19.99	380.30
	GOBHI-Pendleton	0	100.00	0.00	2.76	18.70	0.00	2.54	8.70	3.50	4.33	4.34	0.00	0.00	40.00	0.00	0.00	0.00	10.40	11.27	91.00
	GOBHI-Umatilla	120	99.73	0.00	3.07	29.80	0.00	3.32	18.50	0.00	4.33	4.34	0.00	0.01	30.00	0.00	0.00	0.00	16.20	17.56	58.20
	GOBHI-Wallowa Valley	0	100.00	0.00	3.51	18.70	0.00	1.90	9.89	4.34	4.34	4.34	0.00	0.00	0.00	0.00	0.00	0.00	12.60	19.21	23.50
	Good Sheperd	0	100.00	0.00	1.47	7.70	0.00	1.19	7.70	0.00	4.33	4.34	0.00	0.00	0.00	0.00	0.00	0.00	6.90	7.62	9.50
	Good Shepherd	0	100.00	0.00	2.68	6.70	0.00	2.02	6.50	4.34	4.34	4.34	0.00	0.00	0.00	0.00	0.00	0.00	7.60	8.38	9.00
	LaClinica-Hood River	0	100.00	0.00	2.97	35.20	0.00	1.62	30.90	0.00	4.33	4.34	0.00	0.00	0.00	0.00	0.00	10.00	18.10	18.85	31.70
	LaClinica-The Dalles	0	100.00	0.00	2.90	34.00	0.00	1.84	14.20	0.00	4.33	4.34	0.00	0.00	0.00	0.00	0.00	0.00	6.00	6.58	90.70
	Lake District Hospital	45	99.89	0.00	2.40	44.40	0.00	1.72	7.50	0.00	4.33	4.34	0.00	0.00	10.00	0.00	0.00	0.00	13.70	14.48	132.50
	LaPine-Community-	0	100.00	0.00	2.75	7.60	0.00	2.19	6.60	4.34	4.34	4.34	0.00	0.00	0.00	0.00	0.00	0.00	8.39	9.20	9.89
	LCHC-LincolnCity	0	100.00	0.00	2.56	13.50	0.00	2.00	6.50	0.00	4.33	4.34	0.00	0.00	0.00	0.00	0.00	0.00	7.10	7.84	31.40
	LCHC-Newport	0	100.00	0.00	2.68	16.50	0.00	1.74	6.40	0.00	4.33	4.34	0.00	0.00	30.00	0.00	0.00	0.00	6.10	6.82	28.71
	Legacy Health System	0	100.00	0.00	2.79	54.50	0.00	1.38	5.50	0.00	4.33	4.34	0.00	0.11	20.00	0.00	0.00	0.00	3.30	4.39	56.50
	Lincoln County Data	0	100.00	0.00	2.42	12.40	0.00	1.79	6.40	0.00	4.33	4.34	0.00	0.00	20.00	0.00	0.00	0.00	6.20	6.79	35.09
	Linn Benton CC	0	100.00	0.00	2.77	7.70	0.00	2.16	9.70	0.00	4.33	4.34	0.00	0.00	0.00	0.00	0.00	0.00	7.80	8.53	9.20
	Lower Umpqua	0	100.00	0.00	2.72	28.50	0.00	1.98	29.30	3.50	4.33	4.34	0.00	0.00	10.00	0.00	0.00	0.00	11.90	12.62	48.90
	MCCFL-Tennessee	0	100.00	0.00	2.81	7.70	0.00	1.77	5.60	0.00	4.33	4.34	0.00	0.00	10.00	0.00	0.00	0.00	5.30	6.04	6.80
	MHCC-Civic	0	100.00	0.00	3.14	9.89	0.00	1.59	5.40	0.00	4.33	4.34	0.00	0.00	0.00	0.00	0.00	0.00	3.40	4.44	5.40
	MHCC-Stark	0	100.00	0.00	3.18	10.80	0.00	1.62	5.40	4.34	4.34	4.34	0.00	0.00	0.00	0.00	0.00	0.00	3.60	4.49	5.40
	2011 Rolling Average:		99.98		2.85			2.07			4.33			0.02			0.01		11.06		



Troubleshooting: Using the OHN Welcome Guide

- 1. We have put together a comprehensive Welcome User Guide which gives an overview of the network, preparing for installation, using the network, configurations and much more.**
- 2. Please review Section 4 of the Welcome User Guide “Using the network” which gives detail on making the most of your OHN connection.**
- 3. The entire Guide is available on our website, http://www.oregonhealthnet.org/sites/ohn.osuosl.org/files/ohn_welcomeuserguide_110107.pdf**

Troubleshooting Guidelines

1. ***The OHN NOC works proactively to troubleshoot the OHN Network***

- The NOC will open tickets on a client's behalf once a problem is detected
- The NOC will contact a client via email to let them know a ticket was opened on their behalf
- It is very important to keep your contact information up to date! You can use your portal for this.

2. ***Before opening a ticket...***

- Make sure to have your on-site IT team review the problem and determine if it is a local network/hardware problem or a problem with the OHN Wide Area Network.

3. ***Always contact your vendor first!***

- Your primary point of contact for all troubleshooting should be your vendor
- The vendor will work with the OHN NOC at a high level to quickly isolate and solve any problems
- It is important to develop a relationship with your vendor

4. ***Respond to tickets submitted to you as soon as possible***

- Remember you are part of a network and it is vital that the OHN NOC works to monitor your connection as well as everyone else's so there is no degradation in the overall network viability.

Network Operations Center

- ***The NOC is available from 8:00 am to 5:00 pm Monday through Friday, and after hours with prior scheduling***
- ***For more information on the NOC, visit our website:***
<http://www.oregonhealthnet.org/content/network-operations-center-noc>
- ***NOC contact information: ohnnoc@easystreet.com or 503-213-5400***

FCC Reporting Requirements

Kim Klupenger, Operations Director

FCC Reporting Requirements

- 1. All RHCPPs (including OHN) are required to submit quarterly reports to USAC (FCC) on a quarterly basis.***
- 2. After you are actively on the network, OHN staff are required to work with you to document how your new connection helped your organization implement or improve:***
 - Telehealth/telemedicine
 - Greater access to medical/experts
 - Education/research
 - Etc.

Life after the RHCPP

Kim Klupenger, Operations Director

Life after the RHCPP: Eligible for RHC

- After May 2014 (5th year of RHCPP), OHN **can help** “roll over” OHN sites that are eligible for the FCC’s standard Rural Health Care (RHC) program if:
 - Your site is not in an urban community (over 20,000) or included in a Metropolitan Statistical Area
 - You remain an OHN participant
 - You meet other eligibility requirements set out by the FCC

Life after the RHCPP: Ineligible for RHC

- If you are *ineligible* for the standard FCC Rural Health Care program, OHN will:
 - Continue to provide 24x7 monitoring through the NOC
 - Work to identify and prioritize critical applications that will be running on the network to meet or exceed growing quality-of-service requirements
 - Work to identify additional services or hosted solutions that provide the greatest value to OHN participants
 - Continue to build and leverage a growing state-wide strategic partnership network to ensure that all participants have access to sound best practices, training & education, advocacy/policy support and applications/hardware to support your telemedicine & education initiatives

Recap & Next Steps

Kim Klupenger, Operations Director

Next Steps!

1. Attend ALL RHCPP Orientations. Dates and times are listed on our website: <http://www.oregonhealthnet.org/resources/brochures>

- **Orientation 4: Invoicing & Billing**

- Review of the highly detailed and interdependent FCC invoicing process. How to review and approve vendor invoices for RHCPP reimbursement
- You will receive an invitation to attend this orientation. Additionally, all dates and times for upcoming orientations are listed on the website
- *Who should attend?* All IT, accounting or administration staff responsible for invoice approval and processing
- This is a one-on-one training with Deb Galiel, OHN Associate Project Coordinator. Email Deb to set up a time for training: dgaliel@oregonhealthnet.org or call 503-344-3741

Next Steps!

2. Do you have the support you need within your own team?

Get all members of your team/organization behind you.

- RHCPP's highly interdependent process and aggressive deadlines means it is very important to get everyone in your organization behind you throughout the 3-6 month, 5-step process

3. OHN resources to help you and your team

- 4 Orientations (have the right people attend them all!)
<http://www.oregonhealthnet.org/resources/brochures>
- Staff (see next slide for roles and contact information)

Resources

1. Web:

www.oregonhealthnet.org

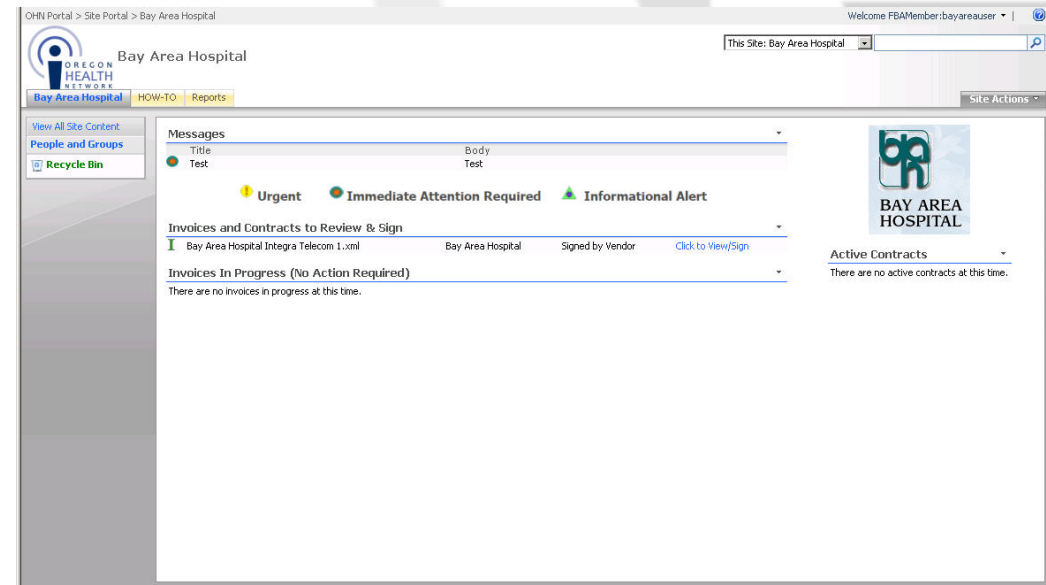
2. OHN Participant (Site) portals

- Secure, authorized permission site. Login information is issued to pre-identified contacts within your organization.

3. OHN Staff

4. OHN Welcome Packet

- A PDF of our new Welcome Packet can be found at:
http://www.oregonhealthnet.org/sites/ohn.osuosl.org/files/OHN%20Welcome%20User%20Guide_final_1.pdf



OHN Staff Contact Information

General Account & RHCPP Questions:

Monica Koiv, *Account Manager*

mkoiv@oregonhealthnet.org

503-344-3759

RFP & Technical Questions:

Peter Trnavskis, *IT Project Manager*

ptrnavskis@oregonhealthnet.org

503-344-3744

Post-RFP Award Process Questions:

Deborah Galiel, *Assoc. Project Coordinator & Office Mgr.*

dgaliel@oregonhealthnet.org

503-344 -3741

Legal/ Contract Questions:

Kim Klupenger, *Operations Director*

kklupenger@oregonhealthnet.org

503-781-7929

Network Service Issues:

NOC Helpdesk

503-213-5400

ohnnoc@easystreet.com

Billing Questions:

Deborah Galiel, *Assoc. Project Coordinator & Office Mgr.*

dgaliel@oregonhealthnet.org

503-344 -3741