



Edge Network Deployment Report 2021

New locations and upgraded PoPs



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A word from the Executive Director, Bill Woodcock

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A dedicated team building a more resilient Internet

Core DNS Services

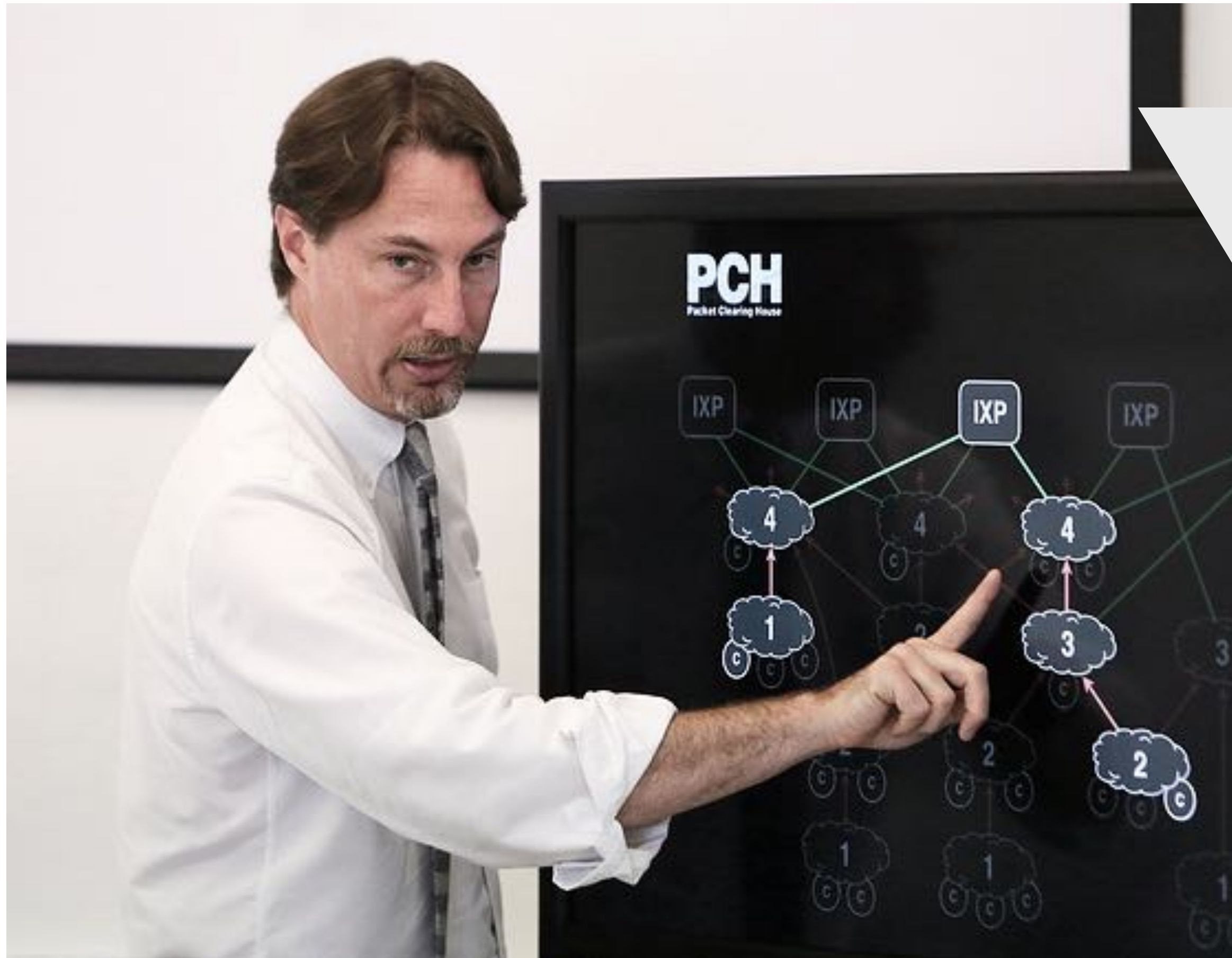
Find out more about the resources available in our edge nodes

Edge Network Updates

An overview of new PoPs and upgrades, plus some general statistics

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Acknowledgement to Internet infrastructure companies that support our work



Foreword

Welcome to the Edge Network Deployment Report 2021.

The report you are about to read summarises PCH's deployment activities during 2021 and covers new locations and upgrades of existing sites.

Building DNS clusters at Internet exchange points around the globe contributes to our mission of making the core of the Domain Name System more robust and reliable against attack for everyone.

We look forward to extend our services to more IXPs and improve DNS resolution for network providers.

Bill Woodcock
Executive Director

MEET THE TEAM

AN INTERNATIONAL TEAM GLOBALLY DISTRIBUTED



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BRINGING CORE DNS SERVICES TO THE EDGE

EXTENDING CORE DNS SERVICES TO INTERNET EXCHANGE POINTS WORLDWIDE

DNS services are a critical piece of Internet infrastructure that network operators require to provide fast and reliable broadband. Our mission involves building clusters of core DNS services in emerging economies and developing countries, increasing the security and the availability of domain resolution for local networks. By bringing such services to the edge of the Internet, we make the DNS more robust and resilient to attacks.

Our presence at Internet exchange points guarantees that all networks, regardless of their size or their region, access and benefit from our services free of charge and on an equal footing.

If you are interested in bringing PCH's services to your Internet exchange, please check how in the "Become a Host IX" section of this report.

DNS Root zone

We provide anycast secondary service to two letters of the DNS Root zone: D-Root and E-Root.

Authoritative ccTLDs and gTLDs

We provide anycast secondary service to 117 country-code TLD operators and 50 generic TLD operators.



We host the recursive resolver system Quad9, a free service that replaces your default ISP or enterprise DNS configuration, and protects you from malicious domains without compromising on privacy.

BGP Route Collectors and public looking glass

In addition to DNS services, we collect and archive BGP routing data on each edge node and operate a public looking glass facility to assist network operators troubleshooting routing issues.



OVERVIEW OF DEPLOYMENTS

EDGE NETWORK DEPLOYMENTS

Every year the Internet nearly doubles in size with millions of new devices and users connected to an IP network somewhere in the world. Building DNS infrastructure at this scale involves expanding the number of edge nodes in our network to remote areas and emerging economies. Our network has an open peering policy and attempts to peer with every network participating at Internet exchange points.





2021 AT A GLANCE

A FEW STATISTICS

34

New Sites and Upgrades

We deployed new equipment and upgraded existing sites in 34 locations worldwide.

15

New Countries and Territories

Afghanistan, Croatia, Greece, Iceland, Jordan, Kuwait, Mali, Norway, Latvia, Liechtenstein, Luxembourg, Peru, Puerto Rico, Saudi Arabia and Taiwan.

800 Gbps

Added peering capacity

We added an estimate of 800 Gbps capacity to our peering links, increasing our ability to stay available under high volumes of unsolicited traffic (denial of service attacks).

NEW LOCATIONS AND UPGRADED SITES





Hello Miami!
PCH is now active at Florida
Internet Exchange (FL-IX)



Grißgoddle Schdurgert!
PCH isch jetzt am Stuttgart
Internet Exchange,
kommet se, peeret se!



مرحبا بمدينة العقبة!
تم توصيل شركة بي سي اتش
(PCH) بنقطة تبادل الإنترنت
بالعقبة (AqabaIX)



Hello Salt Lake City!
PCH is now active at
Salt Lake Internet Exchange
(SLIX)



We just upgraded our peering port in DE-CIX NY to 100Gb/s


PCH
Packet Clearing House

DE CIX



PCH
Packet Clearing House

هلا والله وغلا بالمملكة العربية السعودية!
تم توصيل شركة بي سي اتش بمقسم الانترنت السعودي (SAIX)



Hoi Liechtenstein, grüezi Schweiz, servux Österreich!
PCH ist jetzt auch am Rheintal IX!

Rheintal IX
INTERNET EXCHANGE

PCH
Packet Clearing House



PCH
Packet Clearing House

Kumusta, Pilipinas!
Aktibo na ang PCH sa GetaFIX

SPONSORS & PARTNERS

2021 CONTRIBUTORS

We thank our long term sponsors **Cisco**, **Equinix**, **Lumen** and **NTT** for their generous support and sincerely acknowledge our 2021 partners: Aqaba IX, DE-CIX (Barcelona, Dallas, Ruhr-IX), LocIX, GRIX, Peru IX, Croatian IX, Salt Lake City IX, GetaFIX, LUC-IX, Saudi Arabian IX, Rheintal IX, Midwest Internet Cooperative Exchange, Community IX, StarNIX, Megaport, Stuttgart IX, NaMeX, STACIX, IXP Guatemala, NIXA Afghanistan, Reykjavik IX, Mali IXP, Puerto Rico Internet Exchange, Taipei Internet Exchange and BKNIX.





BECOME A HOST IX



STEP 1

MoU and information gathering

We sign an MoU with the Host IX organisation and gather technical and logistical information.



STEP 2

Configuration, shipment and customs clearance

We select the equipment based on the number of participants and traffic exchanged at the IX. We pre-configure and test it before shipping to the address of your choice. You provide logistical assistance in the customs clearance process

[MORE INFORMATION](#) →



STEP 3

Installation and service turn-up

You assist in installing the equipment and PCH completes turn-up of DNS services.

THANK YOU

For more information, visit www.pch.net

DANKE SCHÖN
GRACIAS

ขอขอบคุณ

شكرا

TAKK SKAL DU
HA