

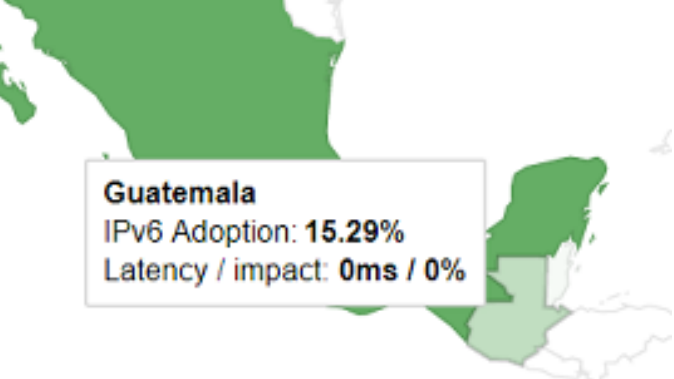
IPv6 Status

August 2020

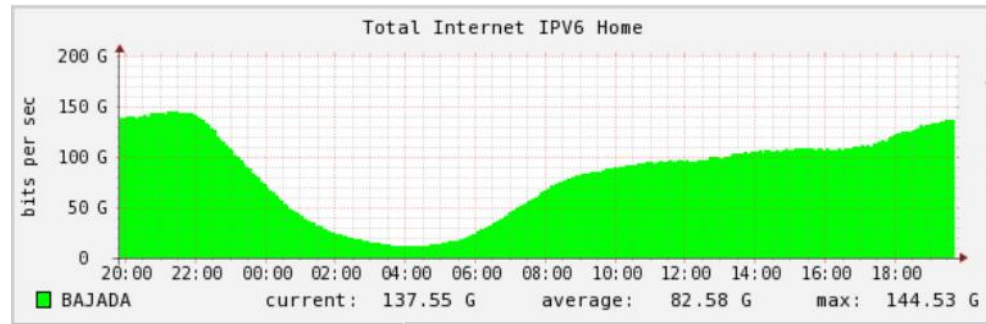


¿Porque usar IPv6 en la Red ?

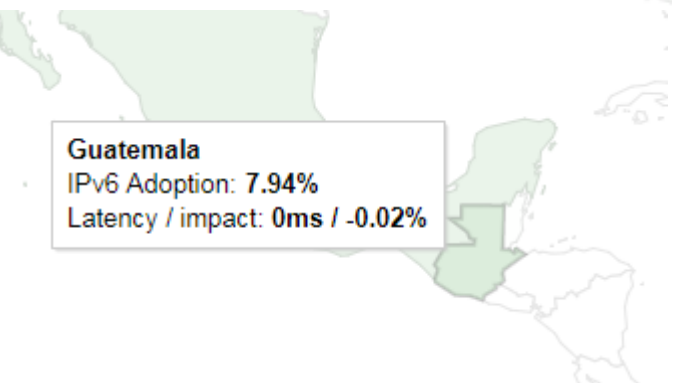
- Total Agotamiento mundial de IPv4
- Demanda de uso IPv4 publico por segmento clientes corporativos.
- Protocolo habilitador de servicios masivos.
 - Ultra Mobile Broadband
 - VoLTE
 - IoT
- Reducción de CAPEX en equipos destinados para CGNAT.
- Limitante de uso IPv4 privado en UGWs (Mobile) para diversos APN/PDPs (/8, 16MM)



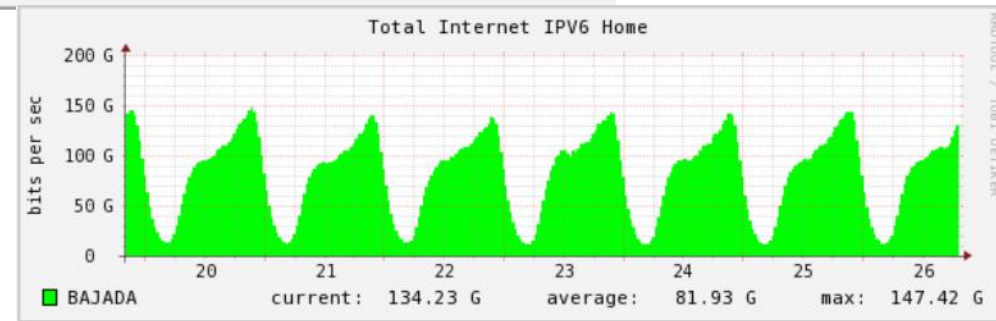
Agosto 2020



**Trafico Actual
red Residencial
~ 35% al 38%**

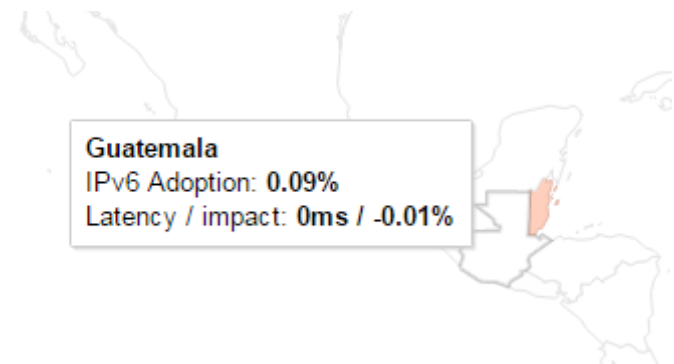


Noviembre 2017



¿Cómo?

- Activación del 94% de Cablemodems con IPv6
- Tráfico OTTs full IPv6
 - Netflix
 - Facebook
 - Google / Youtube
- Sistema de aprovisionamiento y gestión migrado a IPv6
- Homologación continua terminales y proveedores.



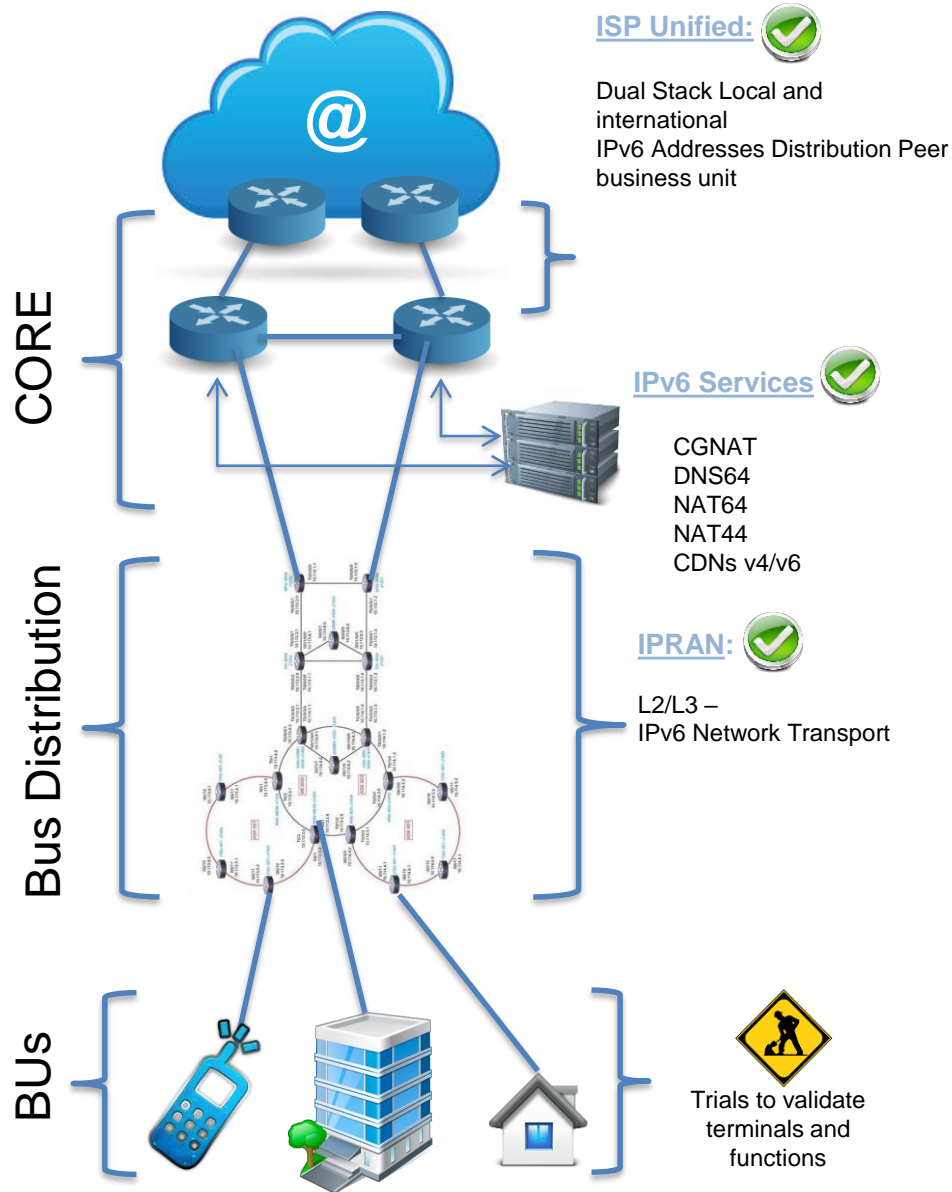
Enero 2016



**Lanzamiento
6 / Nov / 2016**

IPv6 in Guatemala

Update May 2017



Migration Strategy

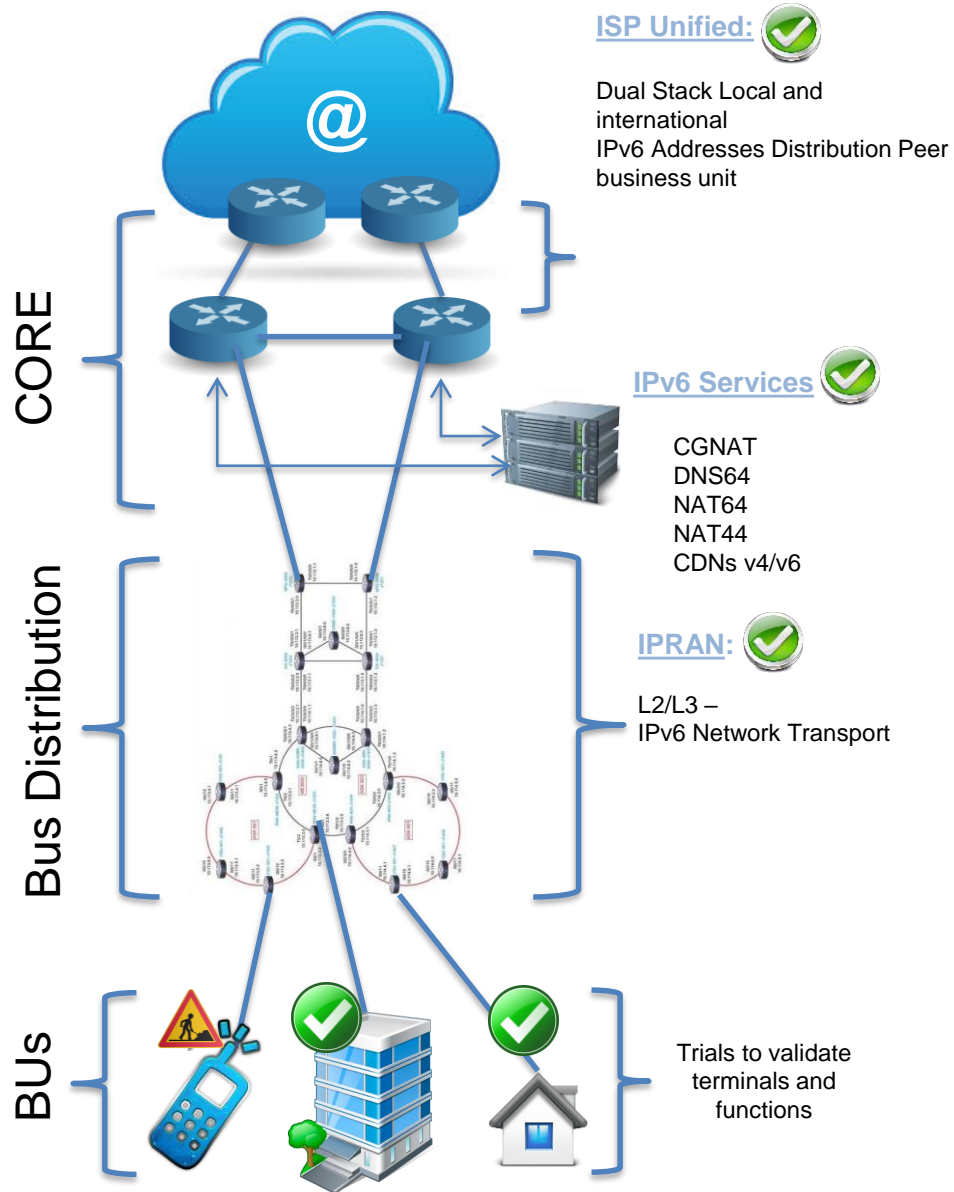
- ❖ Dual Stack for end users Terminals and Access Routers
- ❖ MPLS Tunnels for transport continues over ipv4

Main Objectives

| | 2015 | 2016 | 2017 |
|------------|---|--|---|
| Core & ISP | <ul style="list-style-type: none"> ✓ IPv6 ISP Connections ✓ IPv6 Services ✓ Connection to Business Units | <ul style="list-style-type: none"> ✓ IPv6 Enabled in all Local CDNs | |
| Mobil | | <ul style="list-style-type: none"> ✓ GI and GGSN IPv6 Connections ⚠ IPv6 Mobile trial | <ul style="list-style-type: none"> • APN provisioning for new terminals • Commercial Launch |
| Business | <ul style="list-style-type: none"> ✓ L2 tunnels for transport | <ul style="list-style-type: none"> ✓ L3 VPN for transport • Trial | <ul style="list-style-type: none"> ✓ L3 VPN for transport ⚠ Commercial Launch |
| Home | <ul style="list-style-type: none"> ✓ Trial with Users (Manual) | <ul style="list-style-type: none"> ✓ Manual Modems migration. ✓ Commercial Launch | |
| LAN | <ul style="list-style-type: none"> ✓ WiFi with Dual Stack | <ul style="list-style-type: none"> ✓ Wifi IPv6 Only (Users with Nat64) ✓ Trial in some VLANs | <ul style="list-style-type: none"> ✓ Navigation with Dual-Stack in all Network |

IPv6 in Guatemala

Update Jun 2020



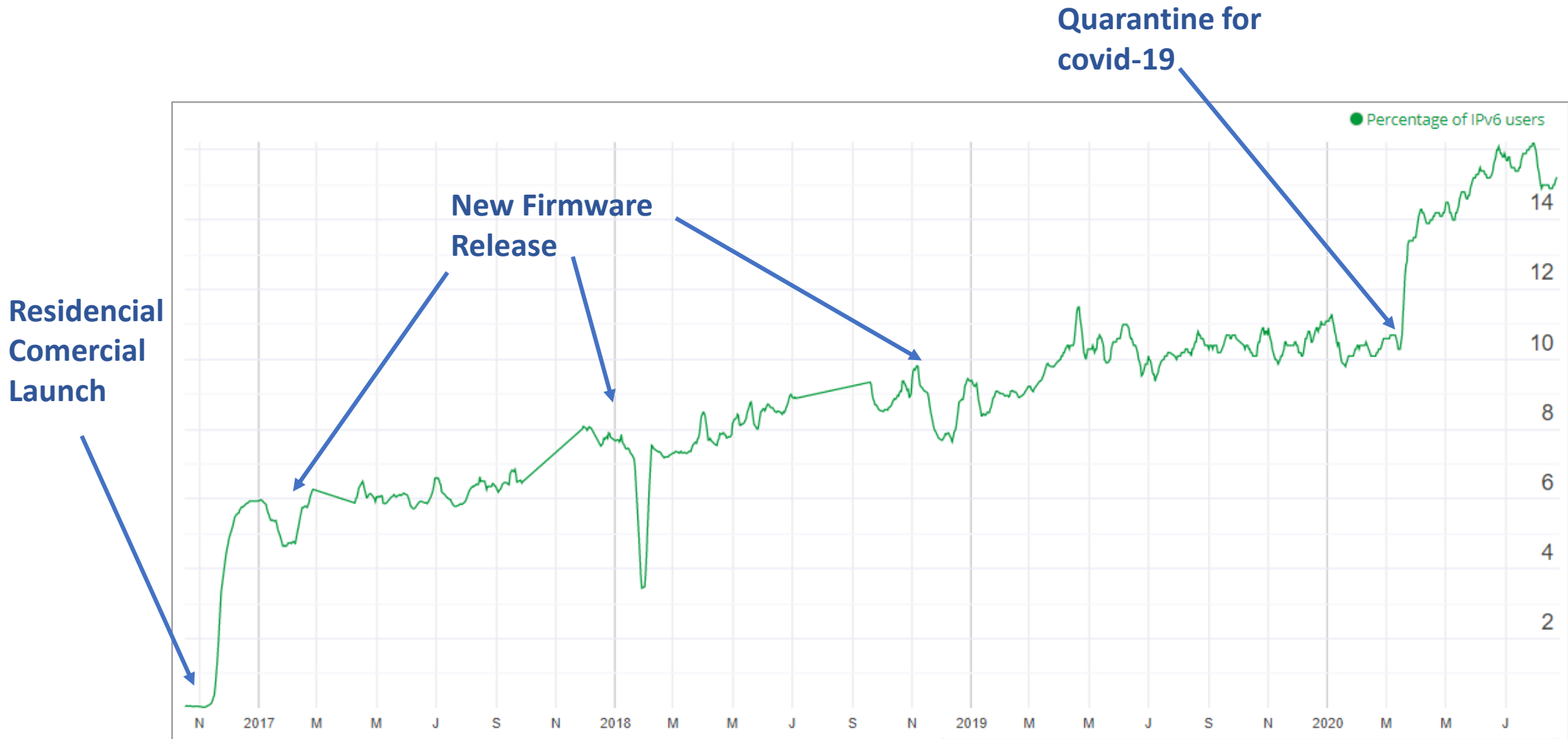
Migration Strategy

- ❖ Reuse free public segments to B2B
- ❖ Dual Stack for Mobile in APN broadband

Main Objectives

| | 2018 | 2019 | 2020 |
|------------|--|--|---|
| Core & ISP | | | |
| Mobil | <ul style="list-style-type: none"> ✓ Approvisioning and billing systems requirements. ✓ Terminals Homologation | <ul style="list-style-type: none"> ✓ Dual Stack APN for New Terminals ✓ Final Test Labs | <ul style="list-style-type: none"> ✓ Approvisioning / Billing / Customer Systems ⚠ Commercial Launch |
| Business | <ul style="list-style-type: none"> ✓ Commercial Launch | <ul style="list-style-type: none"> ✓ Training and Support B2B Cus. ⚠ Massive CPEs Homologation | <ul style="list-style-type: none"> ✓ IPv4 Segments reuse ⚠ Approvisioning System |
| Home | <ul style="list-style-type: none"> ✓ Automatic Provisioning system ✓ Modems Homologation | | |
| LAN | <ul style="list-style-type: none"> ✓ DHCP / IPAM and active directory | <ul style="list-style-type: none"> ✓ Trial in Servers and Firewalls ✓ Total Active Users | <ul style="list-style-type: none"> ⚠ IP+Fabric ⚠ Virtualization |

Users Growth and Terminals Issues



Thank You!

tiGO Factory

