CASE STUDY

Hotel Achieves 6X Boost in Guest Wi-Fi Performance

Highlights:
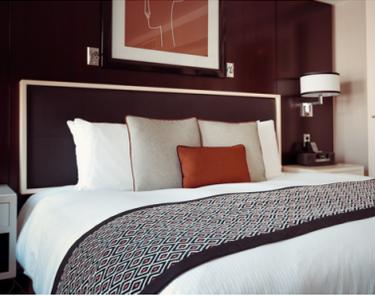
The Anaheim Carriage Inn

Location: Anaheim, CA (near Disneyland)

6X performance improvement

- This hotel near Disneyland struggled with poor Wi-Fi performance – the number one guest complaint driving business away

- Expensive ISP bandwidth upgrades and new on-site equipment failed to deliver, because they didn't address the root cause that impacts all Wi-Fi networks

- After installing *Warp*Gateway™ they saw nearly a 6X improvement in performance, eliminating complaints about slow Wi-Fi and difficulty connecting.

Challenge: Bandwidth Upgrade Fails To Improve Hotel Wi-Fi

Everybody loves free Wi-Fi. It's an important factor for the connected traveler when they're choosing where to stay. There are even websites dedicated to finding hotels with the fastest Wi-Fi networks. Unfortunately for The Anaheim Carriage Inn next to Disneyland and the Anaheim Convention center, the number one guest complaint was slow Wi-Fi that was difficult to connect to. Every day for two hours each morning and evening, 30 to 40 hotel guests would try to get on simultaneously. Of these, 60% watched videos, while the rest uploaded photos, videos, and files.

The Carriage Inn's owner, Rainbow International, tried the typical approach of upgrading bandwidth and other infrastructure to improve Wi-Fi performance. They went from 12Mbps down x 3Mbps up to 20Mbps down x 5Mbps up, and installed a Meraki router, as well as numerous access points. However, there was little improvement, because these upgrades failed to address the real issue driving poor Wi-Fi performance – jitter.

RF interference, fading, and channel access conflict driven by a sudden increase in users create jitter that network protocols such as TCP treat as congestion, slowing traffic to prevent data loss until throughput collapses, even when plenty of bandwidth is available. In addition, local Wi-Fi jitter can cause throughput to collapse over the entire network path back to the application server. As a result, connections drop, videos pause and applications stall. Hotels, restaurants, cafes and other small businesses, as well as larger firms with branch offices all struggle with this, and it will only get worse as more OTT 4K video content is consumed over Wi-Fi.

Solution: *Warp*Gateway™

- Optimizes existing networks
- Compact form factor
- Plug-and-play installation
- Cost-effective
- TCP optimization appliance

- Transparent proxy sits between the modem & local Wi-Fi network
- Up to 100Mbps throughput
- VLAN support
- Failover bypass support (optional)

Solution: *Warp*Gateway™

Once The Anaheim Carriage Inn learned about *Warp*Gateway™ , they decided to give it a try. *Warp*Gateway™ leverages Badu Networks' patented *Warp*Engine™ technology to deliver up to 6X improvement in upload and download speeds on existing Wi-Fi networks for all types of traffic – encrypted, unencrypted or compressed. It achieves this by eliminating throughput collapse due to jitter caused by RF interference, fading, and other factors.

Internet — AP/Router — Internet Modem

Regular TCP — **WarpTCP™**

For The Anaheim Carriage Inn, *Warp*Gateway's impressive performance numbers, easy installation and low cost made it an obvious choice, especially in comparison to the expense of further bandwidth and Wi-Fi infrastructure upgrades that offered little value in return. After installing *Warp*Gateway™ inline between their Internet cable modem and Meraki router, throughput dramatically improved and the connectivity issues they experienced during peak hours went away.

Results: Nearly a 6X Improvement in Performance

6X performance improvement

• Eliminated guest complaints about slow Wi-Fi and difficulty connecting, even during peak usage times
• Enabled the hotel to avoid wasting additional money on upgrades to ISP bandwidth and on-premises routers and access points
• Gained a major competitive edge over the much larger chain hotels in the area.

Throughput per Chunk Size

● Optimized   ● Unoptimized

Throughput (Mbps)

Chunk Size	Value
50K	403% (5.1x)
100K	175% (2.8x)
200K	149% (2.5x)
500K	242% (3.5x)
1M	485% (5.9x)
2M	439% (5.4x)
5M	247% (3.5x)
7.5M+	156% (2.6x)
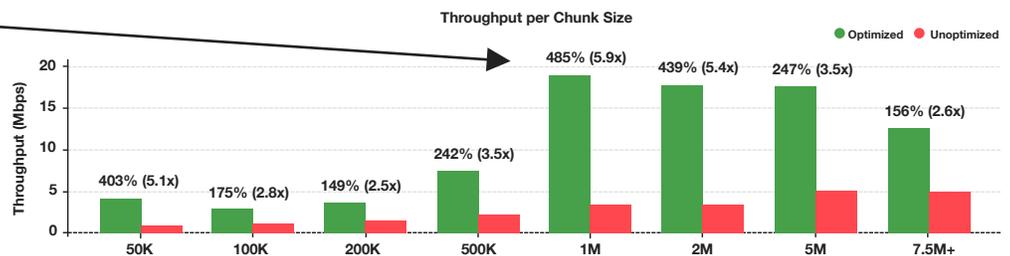
Resources: About *Warp*TCP™ Technology   About *Warp*Gateway™ Appliance   Request a Free Trial

BADU networks

Founded in 2012, Badu Networks has become the market leader in network optimization solutions with our patented *Warp*TCP™ technology that delivers up to a 10x improvement in performance and throughput.

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