Glossary

1. **CNX Score**: The Customer Network Experience Score is a measure of customer satisfaction with network services. It reflects the quality and reliability of the network from the customer's perspective.
2. **CDR**: Call Detail Records are data records that contain metadata about customer calls and data usage. These records are typically used for billing, performance analysis, and network diagnostics.
3. **QoS**: Quality of Service is a mechanism to prioritize specific network traffic to enhance performance and user experience.
4. **Peak Hours**: Peak Hours refer to the time periods when network usage is at its highest due to increased customer activity.

Customer Feedback

1. Customer ID A12345 is located in Auckland CBD and has a CNX Score of 3 out of 10. The customer reported frequent disconnections during network usage. The resolution for this issue is currently pending investigation.
2. Customer ID C23456 is located in Christchurch CBD and has a CNX Score of 9 out of 10. The customer provided feedback indicating excellent service, and there are no issues reported that require resolution.
3. Customer ID B67890 is located in Wellington CBD and has a CNX Score of 4 out of 10. The customer reported slow network performance during peak hours, and the resolution for this issue is currently in progress.

Performance Metrics

1. In Auckland CBD, the bandwidth usage is 85 percent, and the network latency is 150 milliseconds. The packet loss rate in this region is 2.0 percent, and the peak hours for network activity are from 6 PM to 10 PM.
2. In Christchurch CBD, the bandwidth usage is 60 percent, and the network latency is 50 milliseconds. The packet loss rate in this region is 0.5 percent, and the peak hours for network activity are from 5 PM to 9 PM.

3. In Wellington CBD, the bandwidth usage is 90 percent, and the network latency is 180 milliseconds. The packet loss rate in this region is 3.5 percent, and the peak hours for network activity are from 6 PM to 11 PM.

Current Issues and Recommendations

1. **Auckland CBD**:
    - The primary issue in Auckland CBD is temporary network instability due to ongoing equipment upgrades. This instability has resulted in frequent disconnections reported by customers during peak hours.
    - To address this issue, it is recommended to monitor the upgraded equipment logs and resolve any restart incidents promptly.
2. **Wellington CBD**:
    - The primary issue in Wellington CBD is high latency and packet loss, especially in the southern areas of the region. This has caused slower network responses during high traffic periods.
    - To resolve this issue, it is recommended to prioritize hardware replacement for degraded routers in the affected areas.
3. **General Recommendations**:
    - It is advised to optimize QoS settings to prioritize high-value customers during peak hours.
    - Implementing real-time monitoring for high-traffic regions is suggested to detect and resolve issues faster.
    - Proactively notifying affected customers in advance about maintenance or upgrades can help manage expectations and improve customer satisfaction.

Call Detail Records (CDR)

1. Customer ID A12345 is located in Auckland CBD and has a peak usage period from 6 PM to 9 PM. The customer used 12.5 gigabytes of data during this time, with frequent video streaming activity detected.

2. Customer ID B67890 is located in Wellington CBD and has a peak usage period from 7 PM to 10 PM. The customer used 10.8 gigabytes of data during this time, which exceeded the allocated bandwidth for their plan.

Actionable Insights

1. **Optimizing Network Performance**:
    - Adjust QoS settings to ensure that high-value customers receive better service during peak hours.
    - Monitor performance metrics such as bandwidth usage and latency to proactively identify areas of concern.
2. **Improving Customer Experience**:
    - Gather customer feedback regularly to understand specific pain points and address them effectively.
    - Reduce response times for resolving customer issues by improving operational workflows and deploying advanced monitoring tools.
    - Provide personalized communication to customers, informing them of any planned maintenance or upgrades that might affect their service.
3. **Addressing Specific Issues**:
    - In Auckland CBD, the focus should be on stabilizing the network after equipment upgrades and reducing disconnections.
    - In Wellington CBD, hardware upgrades should be prioritized to address the latency and packet loss challenges.