

Juniper® Validated Design

# JVD Solution Overview: Onboarding 5G xHaul and Cloud Metro Networks with Paragon Automation

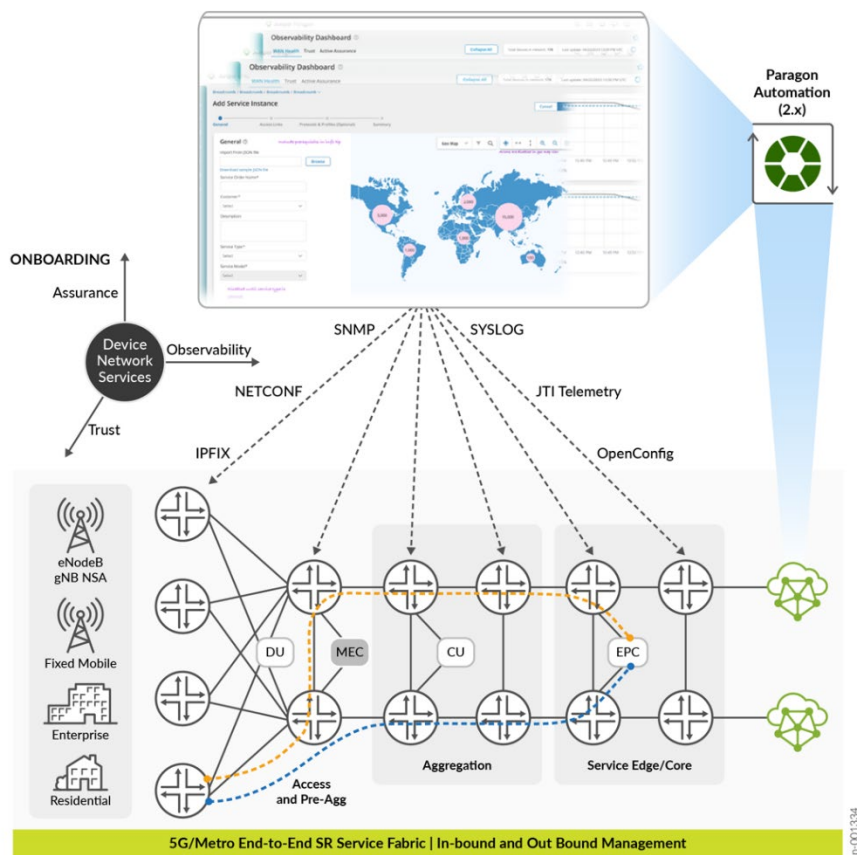
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## Executive Summary

In the dynamic landscape of network engineering, the importance of leveraging validated designs and embracing key principles of network automation cannot be overstated. Failure to do so may result in missing out on the potential benefits that these strategies bring to the table. Consider a practical use case within a referenced network design, where streamlined deployment, monitoring, and management of devices, network infrastructure, and services converge to increase operational efficiency.

This solution represents a first-ever validated design that seamlessly integrates network automation and Paragon Automation (also known as EoP or Epic on Prem). By combining these innovative elements, it enhances the overall capabilities of the network, demonstrating the immense potential and efficiency gains for tier 2 or tier 3 operators within general access and aggregation use case networks.

Figure 1: Automation Solution for Service Provider Cloud Metro Architecture



## Solution Overview

This JVD focuses on the base line automation use cases for the 5G xHaul or Metro Service Provider including:

- Device onboarding (Automated onboarding process using ZTP)
- Lifecycle management
- Device Health Status

Implementing network automation principles and using Paragon Automation in your network design brings in multiple benefits that significantly enhance the solution, such as:

- Decrease in operational costs
- Rapid deployment and scalability
- Reduced downtime
- Faster troubleshooting
- Provides a better experience
- Decrease in time to resolution

These advantages collectively contribute to a more robust and reliable network infrastructure, positioning the organization for sustained success in a competitive landscape.

In summary, the combination of robust hardware infrastructure and Paragon Automation software, along with a comprehensive automation suite, forms the cornerstone of this network design. The integration of these elements not only enhances the overall solution but also ensures a seamless and efficient network operation. By leveraging the strength of both hardware and software, the network is poised to deliver superior performance, scalability, and reliability, ultimately driving the organization towards achieving its strategic goals.



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