

Juniper Apstra Solutions

Focus : Juniper Apstra Platform

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JUNIPER
NETWORKS

Driven by
Experience™

Vijendra Pratap Singh
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apstra®

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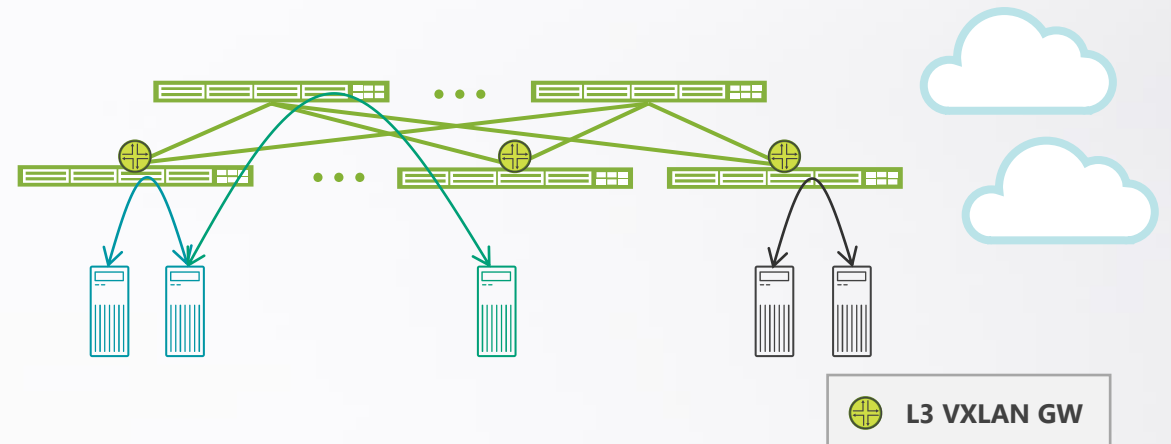
Automated data center

Standard, automated fabrics

- Intent-based, assured operations with root cause identification
- Automated fabric management
- Self-service and DevOps extensions (infra as code)
- Open, programable infrastructure, rich telemetry
- Scalable EVPN-VXLAN for a range of environments



Switching Underlay
QFX Series



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Apstra for your business



Scale, performance and function

"Apstra's system gives us a single view into the entire media production network - regardless of our devices, switches, operating systems or vendors."

- *Bloomberg*



Ease of use and time savings

"We went from POC to production in 2 weeks."
- *BeElastic*



TCO savings

"In the previous solution there were 8 people managing the network, that number went down to 2."
- *Global 500 Manufacturer*



Self-driving network

"Our success depends on rapidly introducing new services, quickly scaling to new demand and delivering the assured experiences. Juniper and Apstra joining forces as one company helps T-Systems"
- *T-Systems*

Bloomberg

 **Beelastic**

T-Systems

YAHOO!
JAPAN

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Feature Development for Rel 4.2.0

Discover the full list of new features grouped per theme

Validated Network Reference Designs



- **Integrated Data Center Interconnect: VXLAN Stitching**
- Adding MAC-VRF support for Junos
- Intelligently Render VRF/RZ

User Experience



- GUI UX Enhancements and Streamlined Workflows
- Developer Experience Enhancements
- Apstra ZTP GUI

Operations



- Apstra Central: UI prototype
- **Custom Telemetry Collection**
- Automatic Baselining and Trend Analysis

Platform & Multi-Vendor



- ACX7024, vJunos-switch, and vJunosEvolved
- Up-To-Date NOS Qualification
- Continued Multi-Vendor Investment and improving EVPN interoperability
- FIPS Certification

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Custom Telemetry Collection

Define new data collection in minutes .. and use it in IBA!

1) Define a custom collector for new telemetry ingestion

```
class BgpRouteCollector(BaseTelemetryCollector):  
    def __init__(self, *args, **kwargs):  
        super(BgpRouteCollector, self).__init__(*args, **kwargs)  
        self.error_msgs = []  
        self.bgp_route_info = {}  
        self.v6_nbr_key = None  
        self.vrf_collector = None
```



Select

show route receive-protocol bgp

2) Get rid of the GraphDB complexity

```
match(  
    node('system', name='system', system_type  
        ='internal')  
    .out('hosted_interfaces')  
    .node('interface', if_type='port_channel', name  
        ='system_interface')  
    .in_('composed_of')  
    .node('interface', name='target')  
)  
.having(  
    match(  
        node('interface', name='target')  
        .out('composed_of')  
        .node('interface', name='system_interface')  
    ),  
    names=['target'],  
    at_least=1  
)  
.distinct(names=['target'])
```



Saved Query

ESI
ESI
Interface with IPv4
Interface with tag
Internal systems
Link
Specific hostname



Get your Super IBA powers with Apstra 4.2

Any Juniper platform, Any Version, Any CLI command

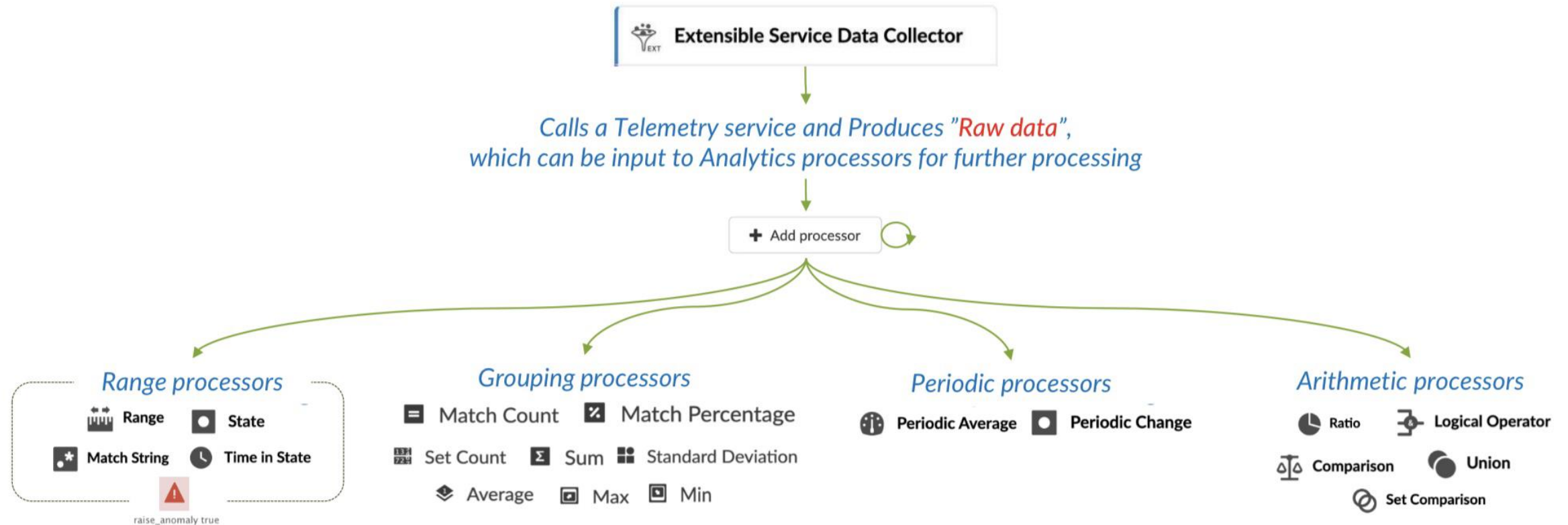
3) Leverage the IBA toolkit

- Match Count
- Range
- Sum
- Min
- Match Percentage
- Max
- Set Count
- Average
- Standard Deviation

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Data Collection - Useful if you implement **Analytics** on top of it



IBA lets you automate knowledge extraction by defining an Analytics Pipeline. Extract insights out of "Raw data".

*: Not all in/out processors chaining are possible, depends on data-type and other factors. Enhancements planned for future releases.

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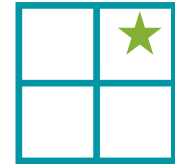
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Recognition

Gartner

2020 Magic Quadrant **LEADER** Data Center and Cloud Networking



FORRESTER

"The vendor has a **strong portfolio of hardware and software**, with feature depth & excellent automation capabilities. **As a result**, the vendor can **meet the technical needs of nearly all use cases in this market.**"

"Juniper Networks recognizes that customers need more than technology and products. **Customers that want to automate the entire network** with a consistent OS, from the data center to the business edge, **should look to Juniper Networks.**"



Intent-based Networking Systems

Gartner Cool vendor in enterprise networking



Best of VMworld winner

IBNS can reduce network infra. delivery times by 50%-90%.

IBNS can reduce the number and duration of outages by at least 50%.

Gartner

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Learn it. Try it. (for free)

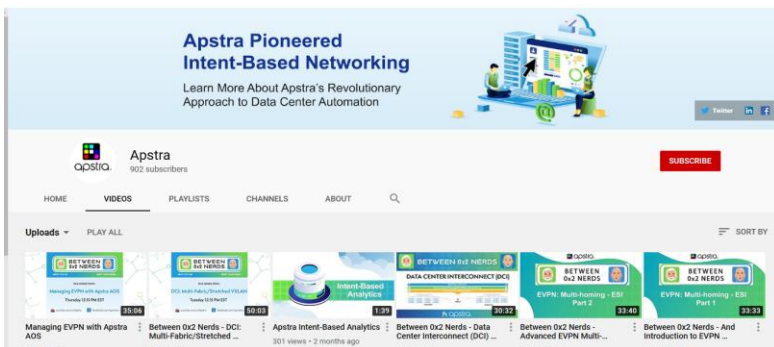
Apstra Academy

<https://apstra.com/products/apstra-academy>



YouTube Playlist

<https://juniper.net/apstra-playlist>

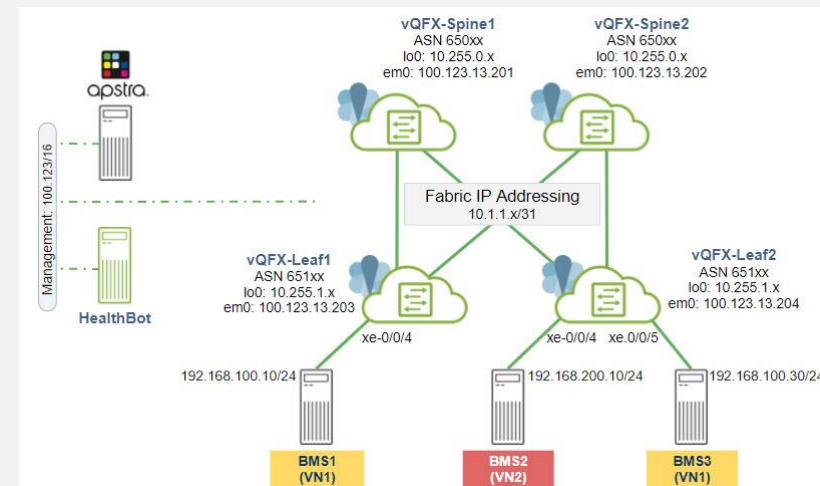


Juniper vLabs

<https://vlabs.juniper.net>

- Cloud-based lab environment
- Virtualized, pre-built network topologies
- Available on-demand – for free!

Apstra DC Fabric Operations



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Thank you

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