

# ICION 6<sup>TH</sup> CONFERENCE 2018

## The Next Generation Enterprise Cloud Network

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**Arista**

Ambarrukmo Hotel, Yogyakarta

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# GOOGLE PIONEERED THE NEW FRONTIER



## Design Goal - Our Inspiration

1000 – 10K Servers

Non-Blocking Low Latency

1/10GE L2 Leaf, 10/40/100G L2/L3 Core

Migration of VM's Across Fabric

On Demand Capacity Per Workload

Workload Mobility

Simplify App and Machine Provisioning

Uncompromised Resilience & Availability

source from : <https://www.google.com/about/datacenters>

# THE NEXT DISRUPTION FRONTIER

## VIRTUAL CLOUD AGE

Application

### IRON AGE



1990s  
Mainframe



2000s  
Client-Server



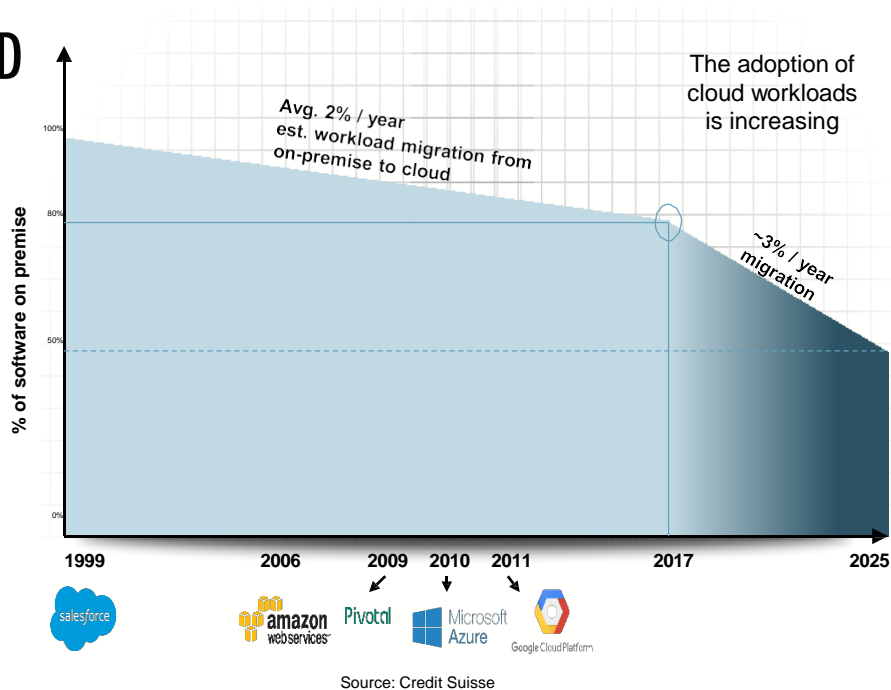
2010-2020  
Web



### Workload Mobility

## CIOs ARE LOOKING TO THE CLOUD

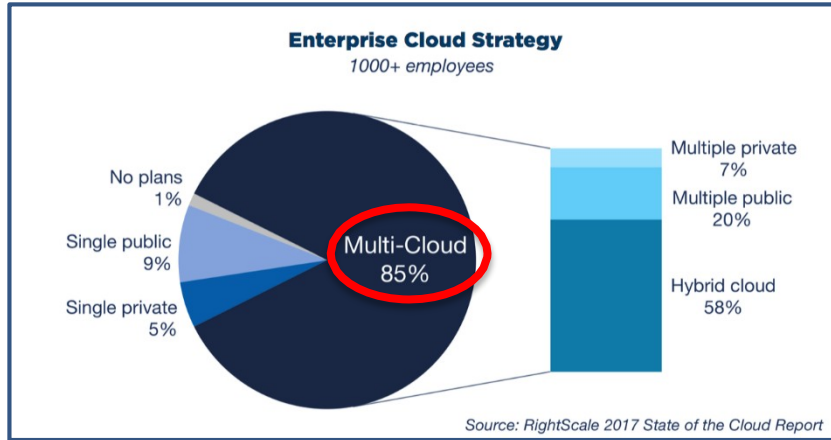
- Optimize costs
- Improve efficiency
- Innovate faster
- Balance legacy
- Scale capacity
- Improve service availability



Cloud infrastructure is fundamentally better



# ENTERPRISE MULTI-CLOUD STRATEGY



Network Considerations:

- Network architecture for growth
- Expertise in cloud platforms
- Networking policy across clouds
- Operation automation across clouds
- Visibility across clouds
- Compliance across clouds
- Etc...

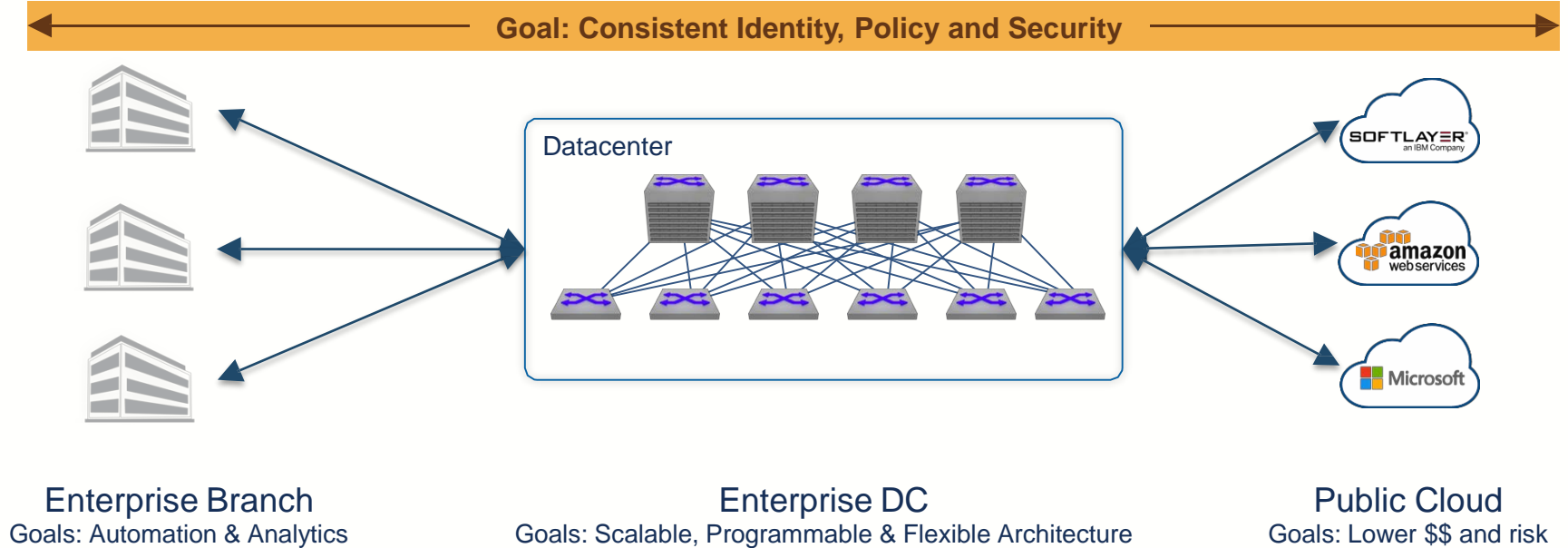
However, IT remains challenged with multi-cloud integration



**SO WHAT'S THE PROBLEM?**

# The Challenge.

## Expanding The Scope of Cloud Networking



**Q: How to Maximise Vendor Choice, Future Optionality and Business Agility?**





# The '5A's of Cloud Networking



# INTRODUCTION TO ARISTA NETWORKS

- Founded in 2004 to pioneer SDN and EOS
- Experienced Management and World Class Engineering Team
- Laser focus on key verticals: Cloud, SP, Web, Big Data, Finance
  - Platform of choice for Tier 1 financials and Cloud Titans
- 4500+ customers ( >7 Million Ports) in 60+ countries
- The leading breakaway DC vendor: >14% share
- Gartner Data Center Magic Quadrant Leader
- Key innovators in:



Merchant Silicon	EOS - Open and Extensible Operating Systems
Network Scaling and Virtualization	SDN and Cloud Orchestration

# ARISTA'S '5' ARCHITECTURE



Private Cloud

Public Cloud

Best-of-Breed 3rd party Technology Integration

Open Cloud API Integration & Automation

Cloud Orchestration

Any Cloud API

Network State Streaming & Telemetry

Cloud Visibility & Telemetry

Analytics

Automation

Universal Cloud Architecture

ANY Workload, Workflow, or Workstream

Agile Work-X

Available Architecture

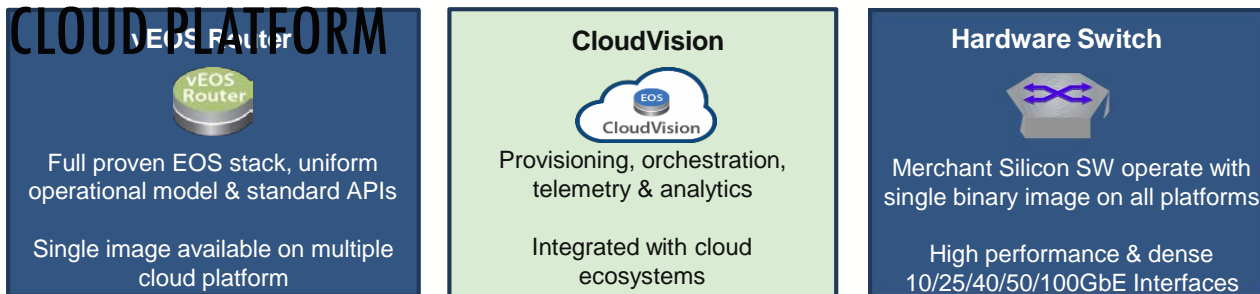
Seamless Workload Mobility

**3x**  
Savings with faster migration and integration between private and public clouds

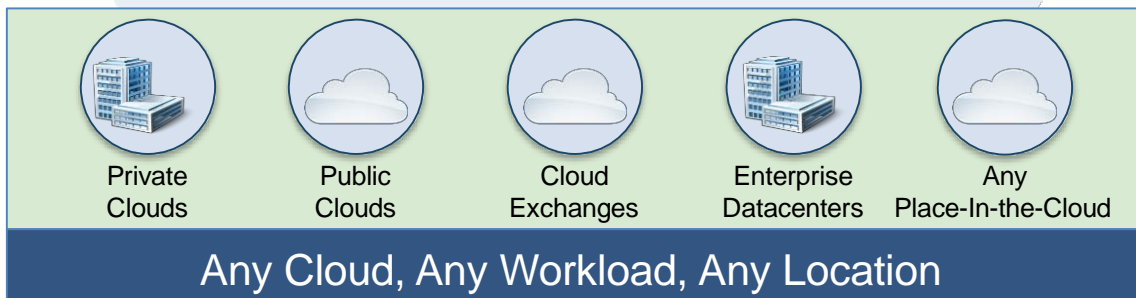
**10x**  
Opex savings using single pane of glass for network automation and analytics into public & private cloud

**5x**  
Cost savings using same operational model for public and private cloud

# ARISTA CLOUD PLATFORM

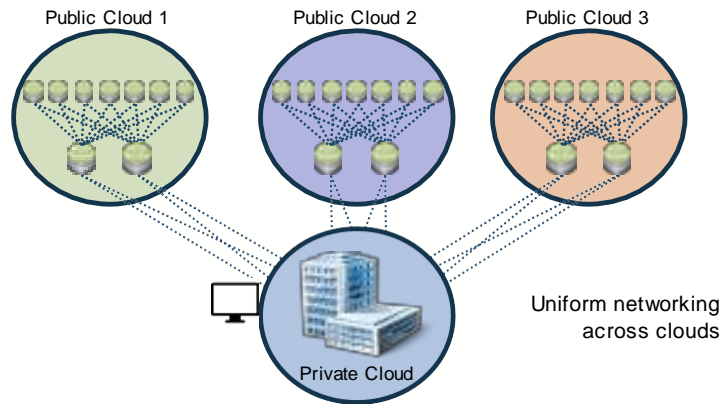
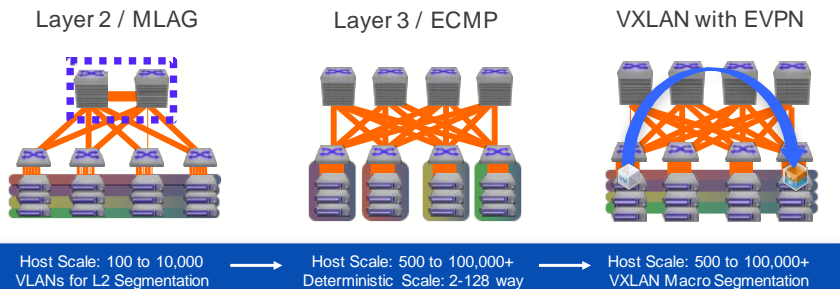


## Universal Cloud Network Architecture



# KEY PRINCIPLE #1: AVAILABLE ARCHITECTURE

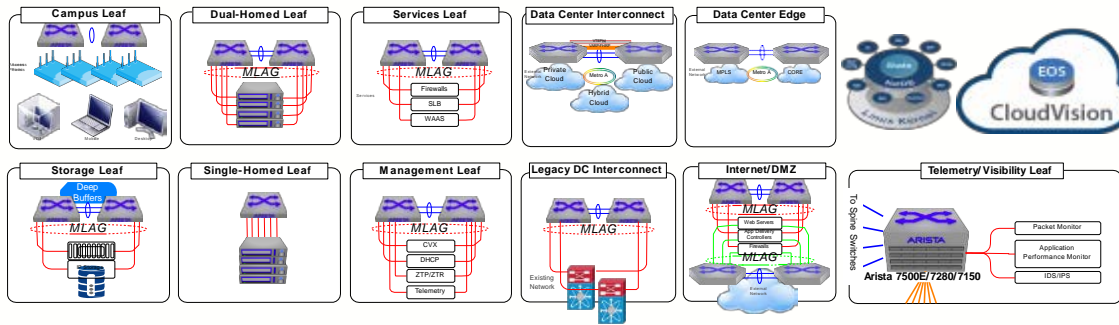
**Available Architecture:** Delivering a self-healing architecture of quality and aperture of data-collection across a highly available leaf-spine network with link, path, device and network wide redundancy. A consistent architecture across any cloud.



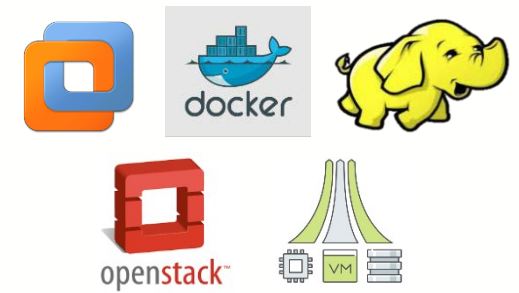


# KEY PRINCIPLE #2: AGILE WORK-X

Agile Work-X Legacy networks are typically unaware of micro-services such as bare metal workloads, new workloads like containers, work-streams such as video, or workflow for storage. A universal cloud network foundation must support key cloud principles for agile delivery of any work-x use case.



Application flow visibility



## Consistent Leaf Design + Software Ecosystem for Any Work-X

## Customer Spectrum

**D.I.Y.**

Custom development for  
integration

Software development  
resources & approach

**ARISTA** ✓

EOS SDK  
eAPI

**DevOps**

Leveraging existing tools  
(Puppet, Chef, etc)

Integration &  
customization via scripts

**ARISTA** ✓

EOS DevOps Toolkit  
Ruby/Python Object Model

**Turnkey**

Limited solutions today,  
focus on legacy models

Customers need turnkey  
solution for cloud-  
automation!

**ARISTA** ✓

CloudVision

# Automation: Accurately Complete Tasks in Minutes Not Days.

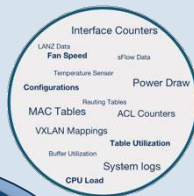
## Overlay Integration

API's for simplified network integration to a best of breed ecosystem



## Telemetry & Analytics

Real-time state streaming and historical analytics



## Automated Deployments

Initial and ongoing provisioning network-wide



## Macro-Segmentation Services (MSS)

Service insertion for securing today's cloud networks



## Change Controls

Network-wide upgrades, rollback and snapshots. Compliance and Bug Visibility



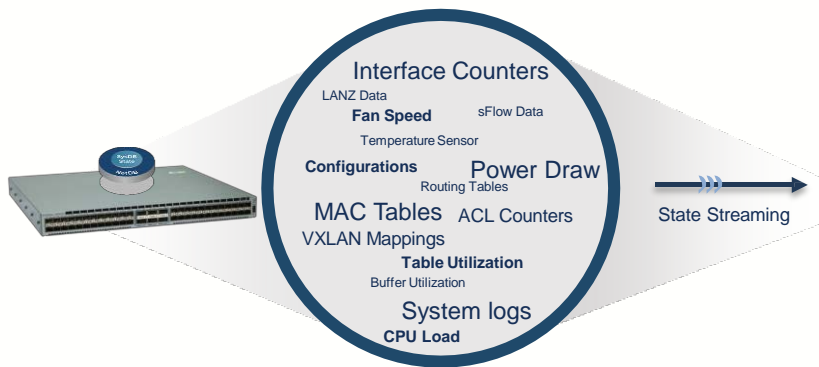
## DANZ TAP Aggregation

Purpose-built to capture traffic at cloud scale and speed



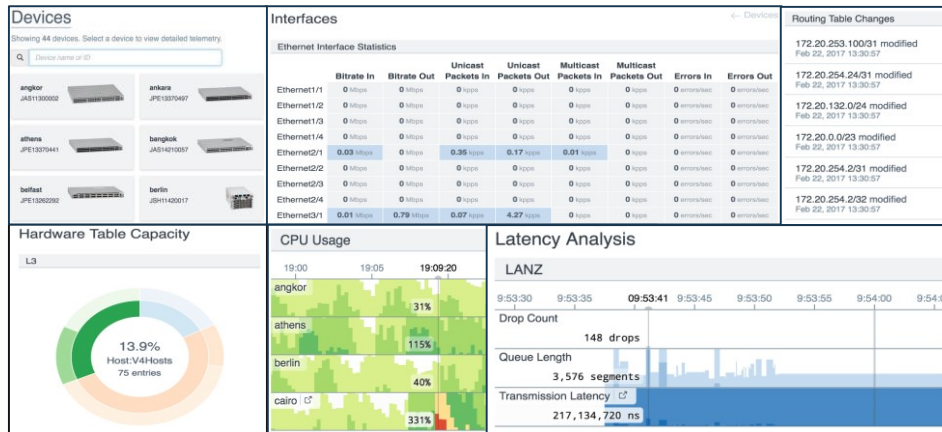
# PRINCIPLE #4: ANALYTICS

**Analytics:** Tracing the workflow information across the different domains to quickly pinpoint problems through telemetry tracers that abstract the actionable meta-data state for dynamic correlation.



Every state change triggers an update...

...and streamed to a central state repository

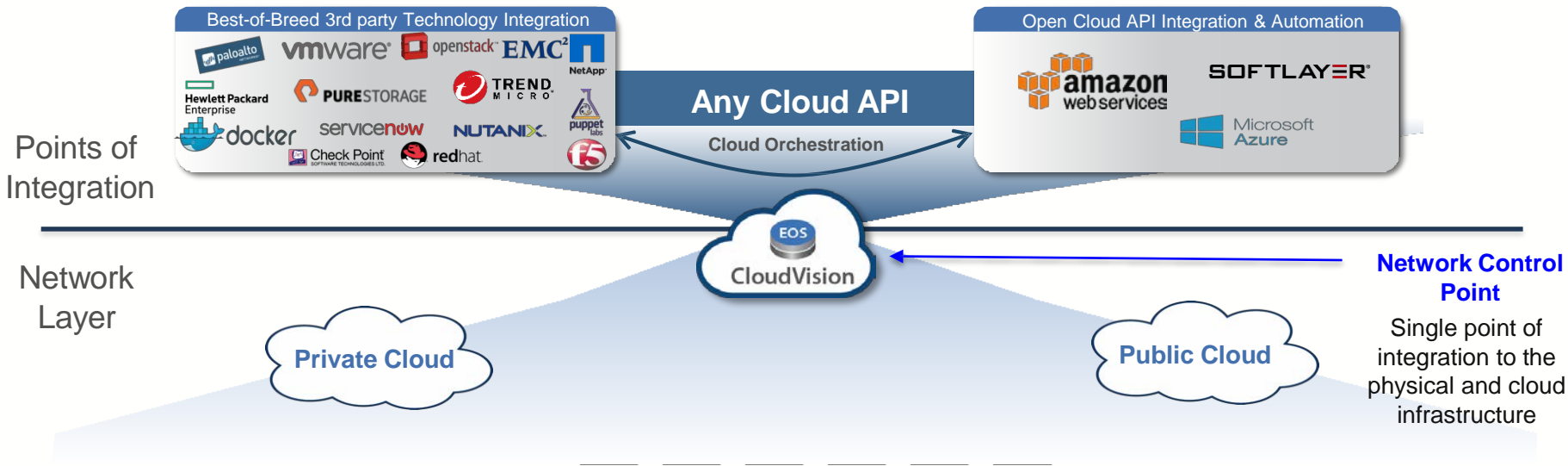


**Streaming Telemetry Allows Visibility and Re-playability for Every Event.**



# PRINCIPLE #5: ANY API CLOUD

**Any API Cloud:** Whereby the state of the network is accessible via open APIs to facilitate Private and Hybrid Cloud deployments and auto-learning predictive methods with available partners.



# ONE FOR THE MEMORIES — ARISTA IN ICION 6<sup>TH</sup> AMBARRUKMO



The challenge for CIOs is to seamlessly and securely adopt a range of cloud platforms to **maximise choice, flexibility and business agility.**

**Enterprises that can rapidly adopt emerging technologies will develop a sustainable competitive advantage.**



Source: Arista Analysis

**The Right Cloud Becomes The Heart of Your Transformation!**



# Thank You, see you in ICION 2019

- Support our effort to build a Safer Cyber Security World in Indonesia. **Our official CISSP classes scheduled for April 23<sup>th</sup> to 27<sup>th</sup> 2018**



- Contact to Vannie via +62 877 7567 8589
- Join us in our LinkedIn Group ICION as below
- <https://www.linkedin.com/groups/3942786>





# See you all in 7th ICION 2019 in Bali





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**ARISTA**  
Executive Lunch Session  
Thursday, 7 September 2017  
12.00 PM - 01.45 PM  
GAIA ITALIAN RESTAURANT  
Jl M.H. Thamrin No.28 - 30 Menteng, Jakarta Indonesia  
LOCATED on 4th floor of prestigious building, the Plaza office tower, Altitude offers the finest 360 degree views of the city. The sparkling lights of the surrounding skyscrapers make evening dining @ Altitude extremely ambient.

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RSVP Needed Via: [somedy@advancedtechpac.com](mailto:somedy@advancedtechpac.com) | [+62 815 912 3030](tel:+628159123030) | [www.advancedtechpac.com](http://www.advancedtechpac.com)



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