

coevolve™

Interface®

# Lessons learned from a global SD-WAN deployment

Presenters:

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# Introduction to Coevolve

Coevolve was established in 2014 to help drive enterprise adoption of next-generation networking technologies such as SD-WAN. We currently provide services to global enterprises in more than 50 countries on six continents



## Our services:

- Professional services and ongoing management services in a range of network-related practice areas
- Integrate best of breed vendors and services for our clients



## Our target market:

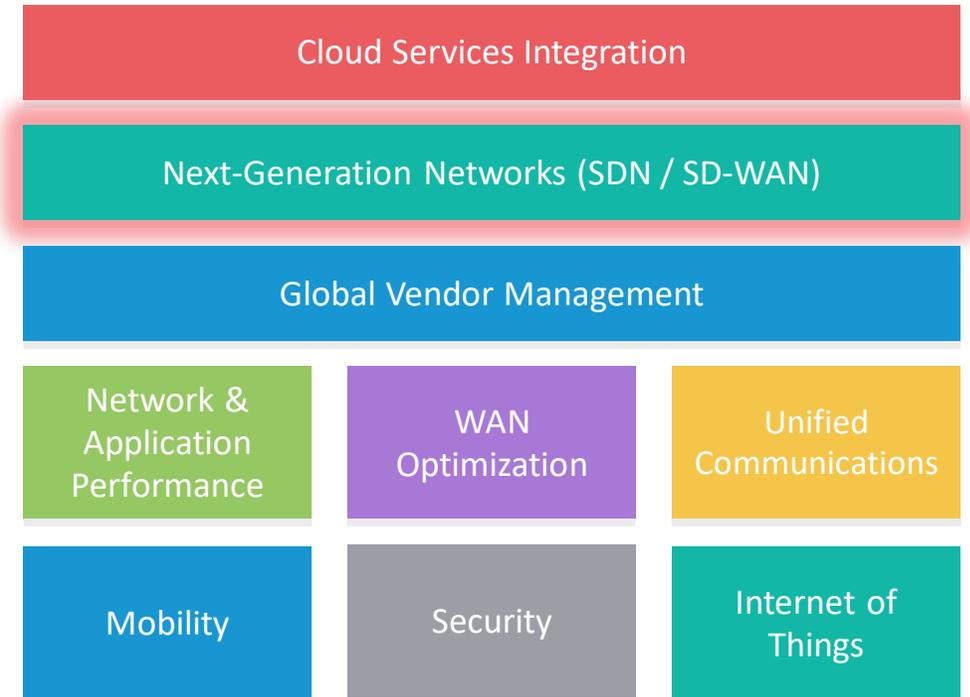
- We work directly with enterprise clients and as a specialist partner sitting behind channel partners playing a pivotal role in the SD-WAN ecosystem
- Key industry verticals: Professional Services, Manufacturing, Technology, Engineering, Construction, Mining, Logistics, Retail



## Our team:

- Experienced team based in US, Australia, Singapore & Malaysia
- Extensive global contractor network
- Enterprise network experience gained at global service providers, integrators, consulting firms, vendors, analysts

## Our Practice Areas



# Introduction to Interface

Interface, Inc. is the world's largest manufacturer of commercial carpet tile and is setting the pace for development of modular carpet using materials and processes that take less from the environment

## About Interface

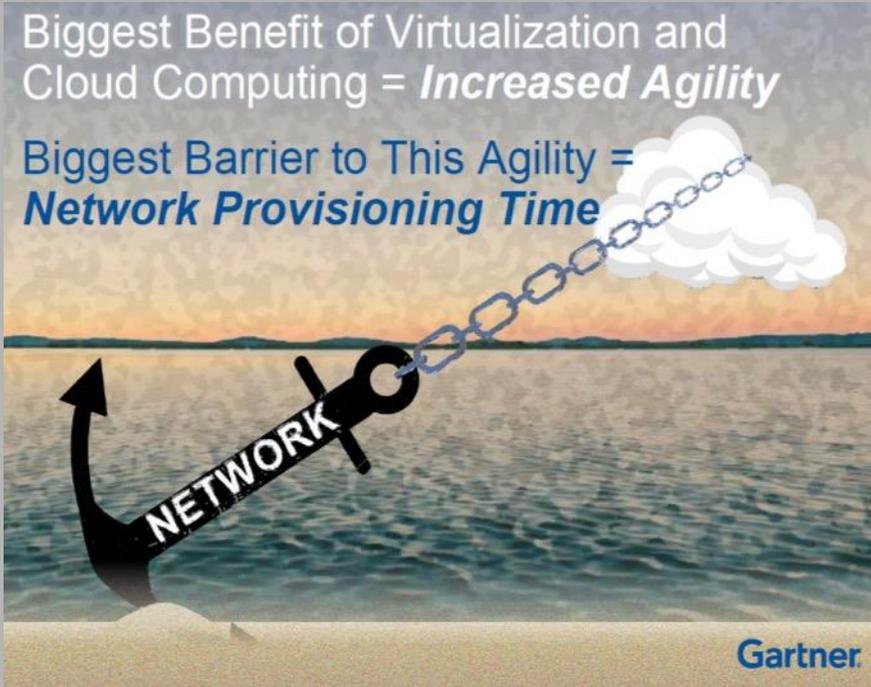
- Interface is a leading global provider of modular flooring solutions for the commercial market
- Interface is the most valuable brand in the flooring category
- Interface has the strongest global sales and marketing capabilities
- Interface has a global manufacturing footprint
- Interface has a highly engaged, customer-centric culture that is focused on high performance

## What drives us?

- A positive vision of the future and the determination to make it come true
- The moral courage to do what is right, despite all obstacles
- An abiding commitment to show that sustainability is better for business
- We believe that change starts with us and is transforming Interface from a plunderer of the earth to an agent of its restoration
- Through this process of redesigning ourselves, we hope to be a catalyst for the redesign of global industry

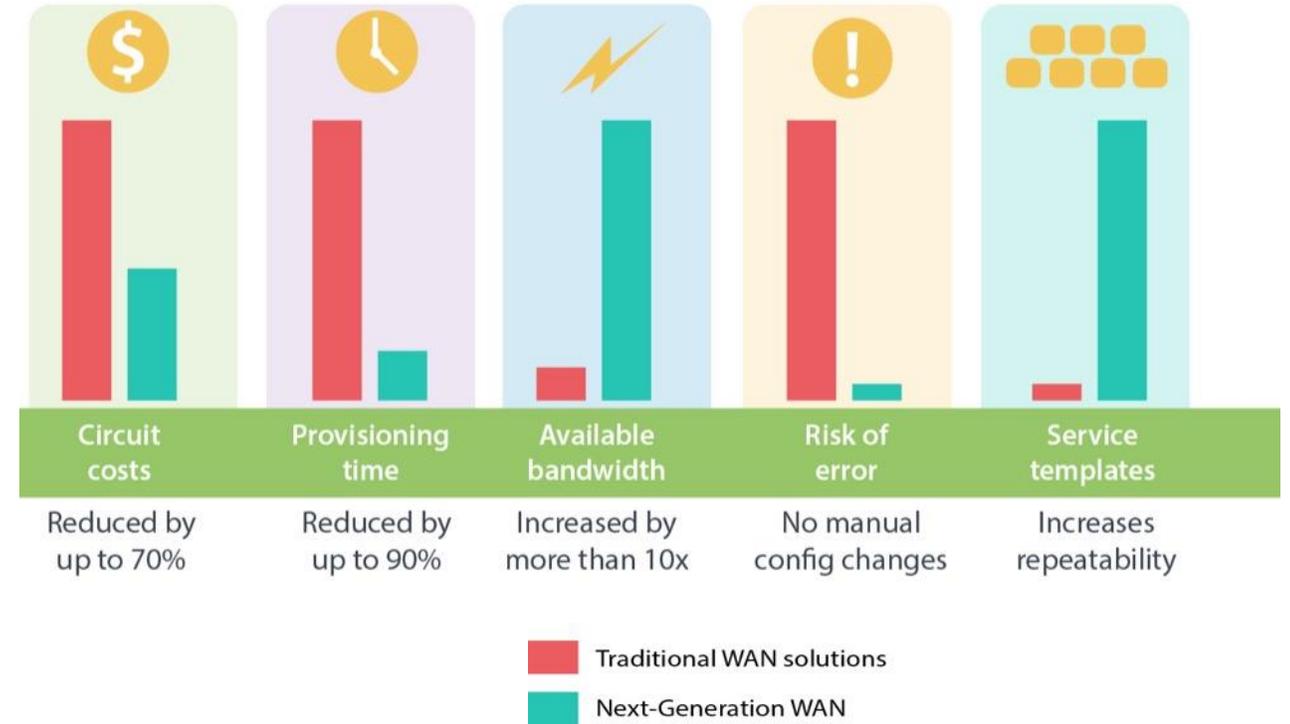
# The Enterprise WAN

## Old world



- Capex-heavy appliances
- Maintenance contracts
- Expensive
- Bandwidth not scalable
- Slow installs

## New world



- Scalable as bandwidth needs grow
- Agile
- Step change in \$/Mbps gains
- Better model for the modern hybrid application environment

# Interface Asia-Pacific SD-WAN overview

The project was initiated mid-2016 and completed in early 2017. We will cover:

- How the business case for the adoption of SD-WAN was made
- How it was determined where SD-WAN would utilize Internet only to replace existing MPLS or where MPLS would be retained
- Testing and deployment observations
- Highlights of the outcomes in TCO reductions, capacity increases, functionality gains
- Considerations for a managed SD-WAN service and how it differs from a traditional managed service offering

## Interface Asia-Pacific sites:



# Network and application challenges

- Increasing **demand for bandwidth**, especially for increased voice and video, JD Edwards ERP, VMWare and Lotus Notes
- **Greater use of cloud services** such as Office 365
- IT mission to **increase access for the workforce** to ever greater agility, scalability and collaboration
- Large incumbent carrier service was **cost prohibitive to upgrade** and very slow moving for all account management and support service



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*We understood well all of the standard incremental upgrade options available...we just thought there must be a better way!*

*We were told SD-WAN was not mature enough, but we did the diligence. After the PoC, we wanted to be a pioneer and take the calculated risk.*

*12 months later we are very happy. Coevolve helped assure and support us all the way through*

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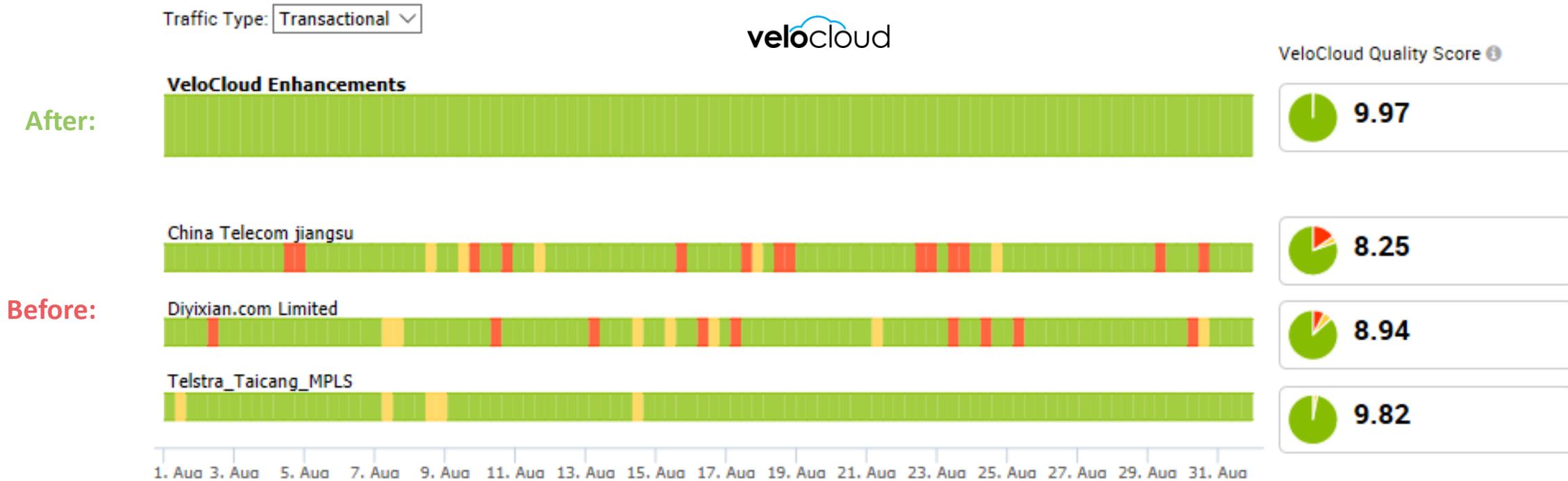
Kelvin Wong, Interface APAC

Coevolve implemented a VeloCloud-based SD-WAN solution at all Interface Asia-Pacific sites, using a combination of Internet and MPLS transport underlay

- 1 Step 1: *Audit*** of current WAN costs and performance with design options to solve performance issues
- 2 Step 2:** Detailed technical SD-WAN *design* (hybrid MPLS & internet), full business case development, migration planning and define the end to end managed service
- 3 Step 3:** Supported the client through the *Proof of Concept* (PoC) for sites in Sydney & Singapore with production traffic – great support from VeloCloud
- 4 Step 4:** Coevolve *rolled out* the fully managed SD-WAN solution in 15 weeks

# Real-world experience: improving application performance in China

A manufacturing site in China increased bandwidth by 4x and network performance improved compared to previous MPLS circuit performance. ERP was kept on the MPLS circuit while all other traffic traverses Internet provided by China Telecom and Diyixian (DYXnet)

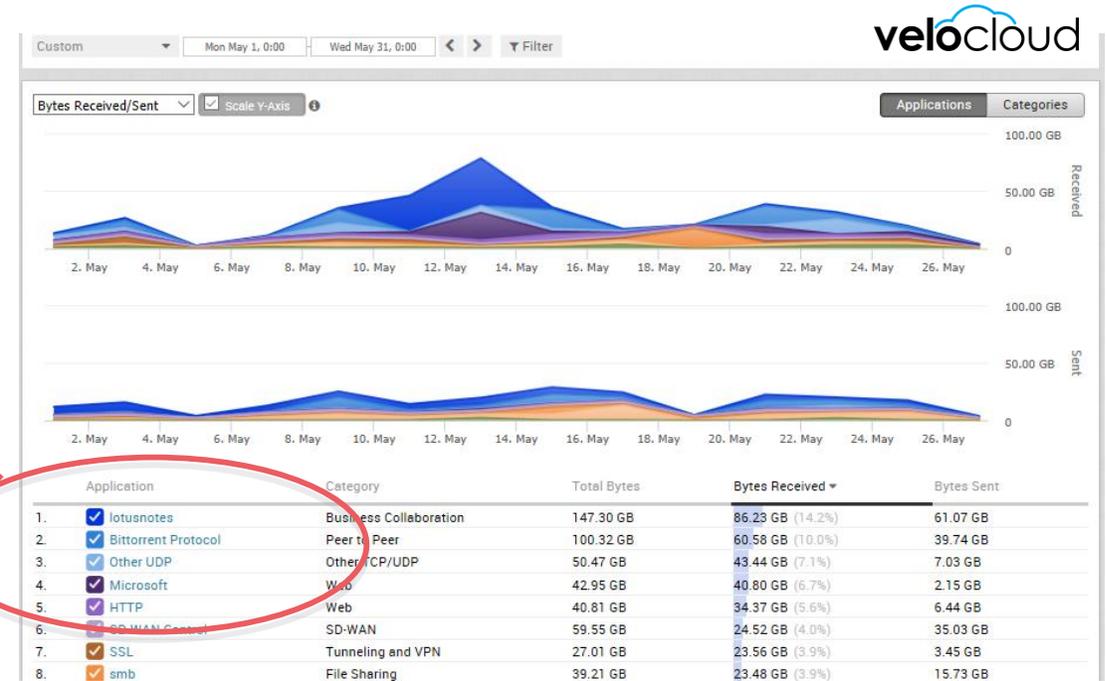


# Real-world experience: application visibility out of the box

Within minutes of deploying an SD-WAN edge at Taicang, Interface saw real-time reports of the applications and devices in use on the network. Interface has self-service access to this reporting data, and uses it as a troubleshooting and analysis tool in its service desk

## What we've seen:

- Application-level visibility enabled Interface to identify non-business traffic (e.g., BitTorrent) and troubleshoot accordingly
- Interface was able to view top talkers, source / destinations for specific application flows, trends over time



# 8 top findings from the project (part 1)

- 1. Capacity increase** of 350% to 2000% at all sites, primarily due to increased use of Internet transport
  - Examples: Singapore DC increase from 2Mbps to 42Mbps; China increase from 4Mbps to 14Mbps; Sydney DC increase from 15Mbps to 65Mbps
- 2. Transition from Active / Backup circuits to a fully Active / Active design**
  - Backup circuit usage previously required a manual cutover in the event of an outage, meaning the investment in the backup circuit was virtually unused
- 3. 25% reduction in total cost of ownership** over 36 months
  - Including cost of change and all bandwidth increases
- 4. Allows video and voice over MPLS** without a requirement to upgrade capacity
  - Limited MPLS capacity reserved for real-time applications; other traffic uses any available capacity

**A step change improvement vs. previous WAN: Cisco routers + MPLS + WANOp**

# 8 top findings from the project (part 2)

5. A step-change improvement in **network and application visibility**
  - Interface can now clearly see all applications in use on the network, and differentiate between business-related and other traffic
6. **Eliminated dependence** on individual circuits
  - Pooled bandwidth approach and Dynamic Multi-Path Optimization mitigates the impact of a performance issue or outage on a single circuit
7. Facilitated a **self-service change model** where appropriate
  - Replaced a cumbersome and expensive change management model with incumbent provider; simple changes can be made directly by the Interface team
8. Provided a foundation for a **more responsive end-user support model**
  - Interface can leverage Coevolve's Response center to resolve complex and strategic issues

**A step change improvement vs. previous WAN: Cisco routers + MPLS + WANOp**

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*We knew we were delivering a **more stable and faster** WAN for the end users...but what surprised us was how this SD-WAN project meant IT could enable other functions like HR to improve their results.*

*In a recent employee survey of our region by HR there was great feedback from across the region – Japan, Korea, China etc. – that with improved application performance, the **employees feel more engaged** in the organisation and less remote to the company.*

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Kelvin Wong, Interface APAC

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Thank you

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