CUSHMAN & WAKEFIELD

WAN SUMMIT

How SD-WAN is Changing the Design and Technology of the WAN

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Agenda

- Who are Cushman & Wakefield
- Recent Integration Activity
- Our Shift to Internet & SD-WAN
- How we are Deploying SD-WAN
- Technical Challenges

Key Statistics

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IDEAS INTO ACTION

Cushman & Wakefield is a leading global real estate services firm that helps clients transform the way people work, shop, and live.

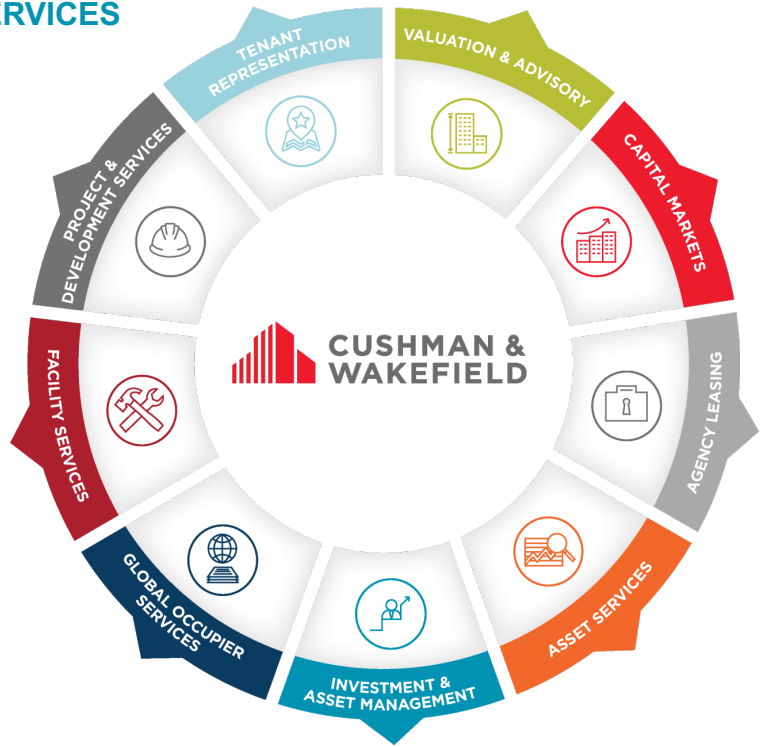
Global Offices and Country Coverage

300 Offices in 70+ Countries

Core Services & Sectors

Targeted expertise through specialty practices

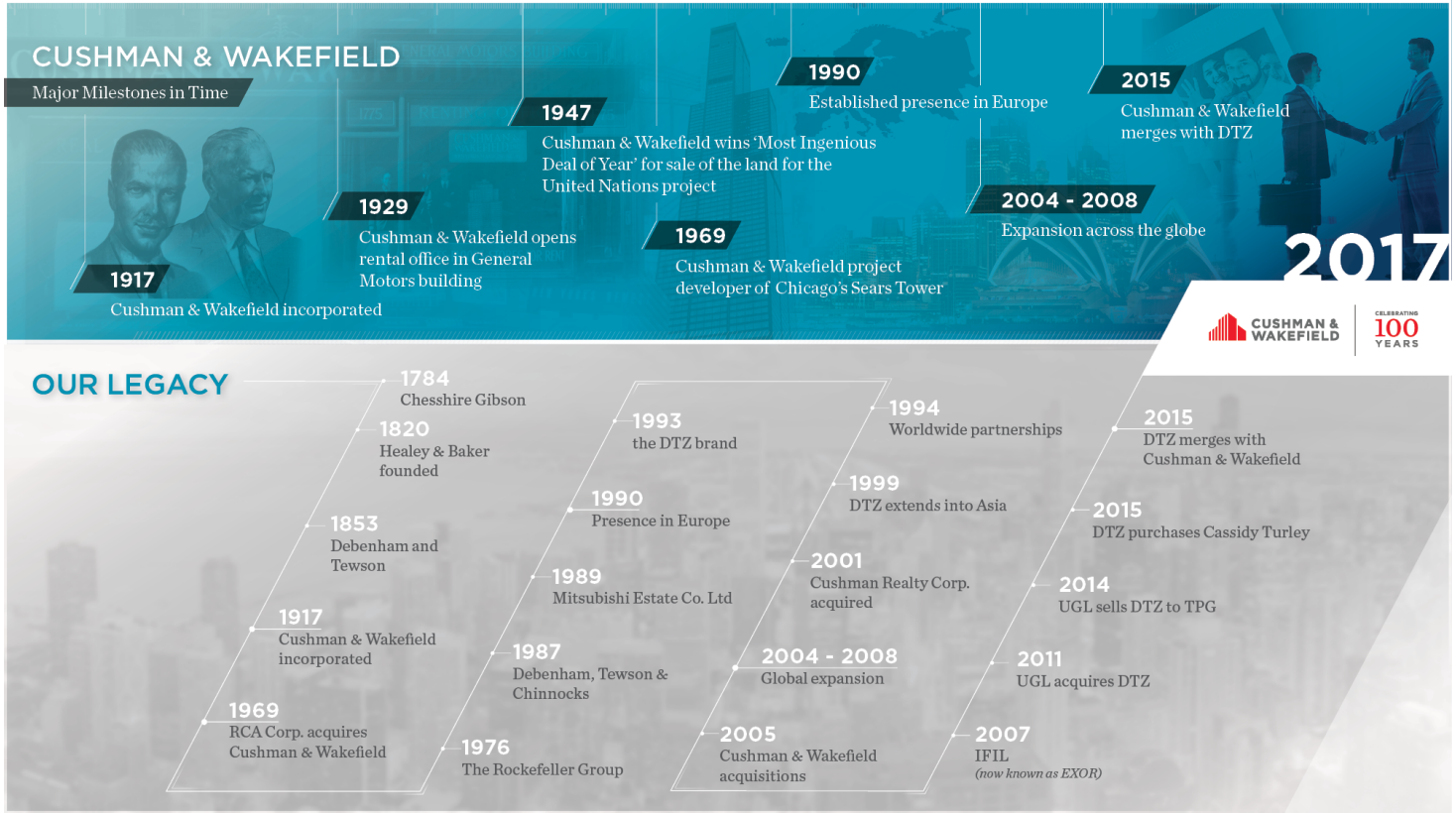
CORE SERVICES



CORE SECTORS

- Airports & Ports
- Automotive
- Banking/Financial Services
- Data Centers
- Education
- Energy (Oil & Gas)
- Food & Beverage
- Government
- Healthcare
- Higher Education
- Hospitality
- Industrial
- Land
- Legal/Professional Services
- Life Sciences/Pharma
- Multi-family
- Net Lease Investment Services
- Not-for-Profit
- Residential
- Retail
- Technology

The Cushman & Wakefield Journey



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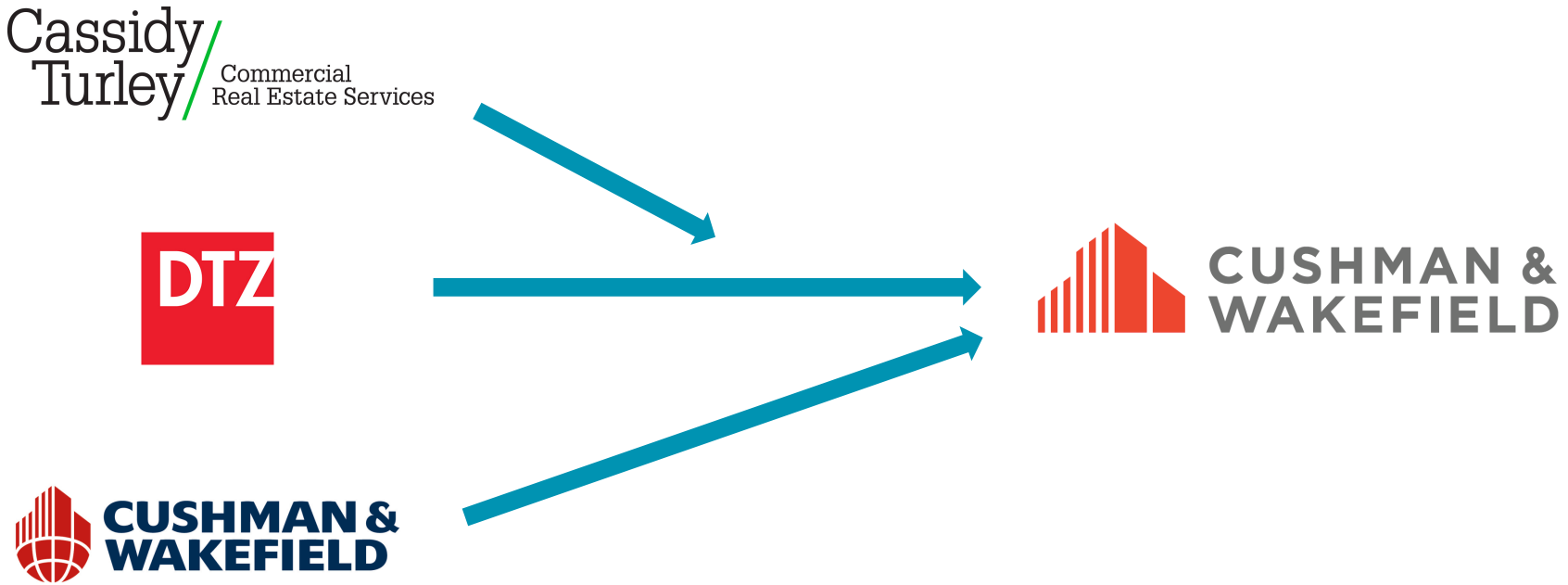
Recent Integration Activity

Recent Major M&A Integration



Integration Approach
Network Technologies

Immediate Term

- Essential Connectivity
- One Network
- Established Standards
- WAN Inventory

Longer Term

- Improved Performance
- Consolidated Data Centers
- Standardized Tooling
- Optimized WAN Services
- Simplified Environment

Challenges Faced During Integration

- Application Access
- Managing Service Providers
- Consistent Branch Experience
- Real Estate Changes
- Network Performance
- Network Availability

Shift to Cloud Applications

On-Premise Services

Skype for Business

servicenow

Office 365

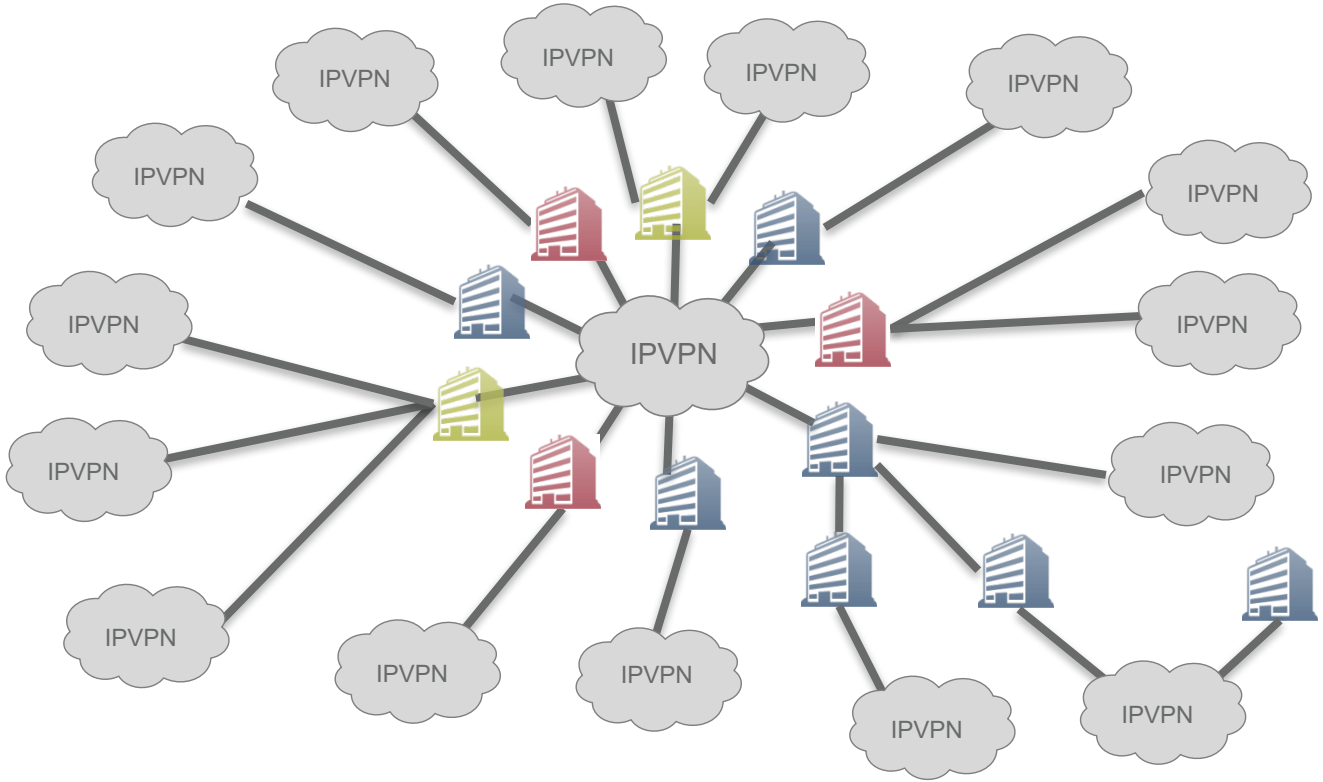
salesforce

workday.

Power BI

State of the Network

One Network Established



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Moving to SD-WAN and Internet

Why Shift to SD-WAN and Internet Connectivity?

- Cost of Service
- Deployment Speed
- Improved Performance
- Local Ownership of Service
- Geographically Local Egress
- Simplified Environment
- Service Portability
- Visibility into WAN Traffic

Engagement with TeleGeography

- Independent Assessment of our WAN Environment
- Identification of Key Locations
- Confidence in our Business Case
- Network Service Recommendations
- Provider Expectations

Adopting Internet Connectivity
What we Learned

- Varies by Market & Geography
- Internet can be more Expensive
- SLAs vs Cost vs Bandwidth
- Some Providers Still Prefer MPLS

- SDWAN Enables Control
- Savings are Possible!

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SD-WAN Implementation

SD-WAN Implementation

Implementation Approach

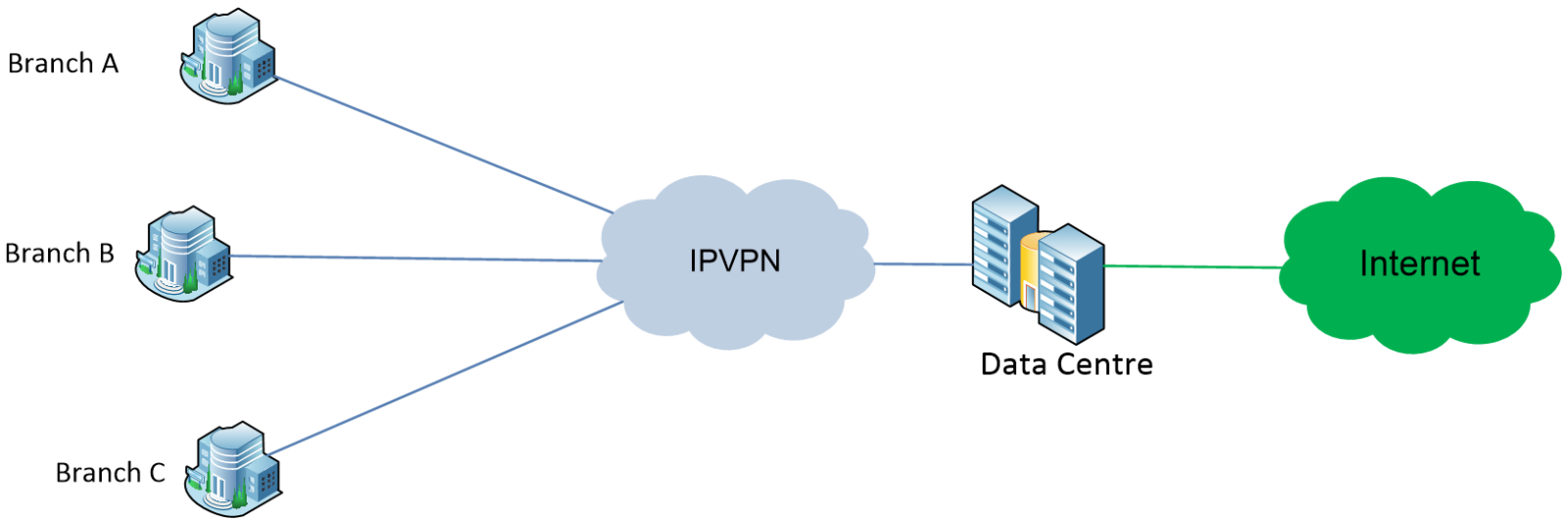
Assess

- Technical Survey
- Plan WAN Changes
- Deployment Challenges
- Scheduling
- Conflicting Initiatives

SD-WAN Implementation

Typical WAN Architecture

Prior State



SD-WAN Implementation

Implementation Approach

Assess

- Technical Survey
- Project WAN Changes
- Deployment Challenges
- Scheduling
- Conflicting Initiatives

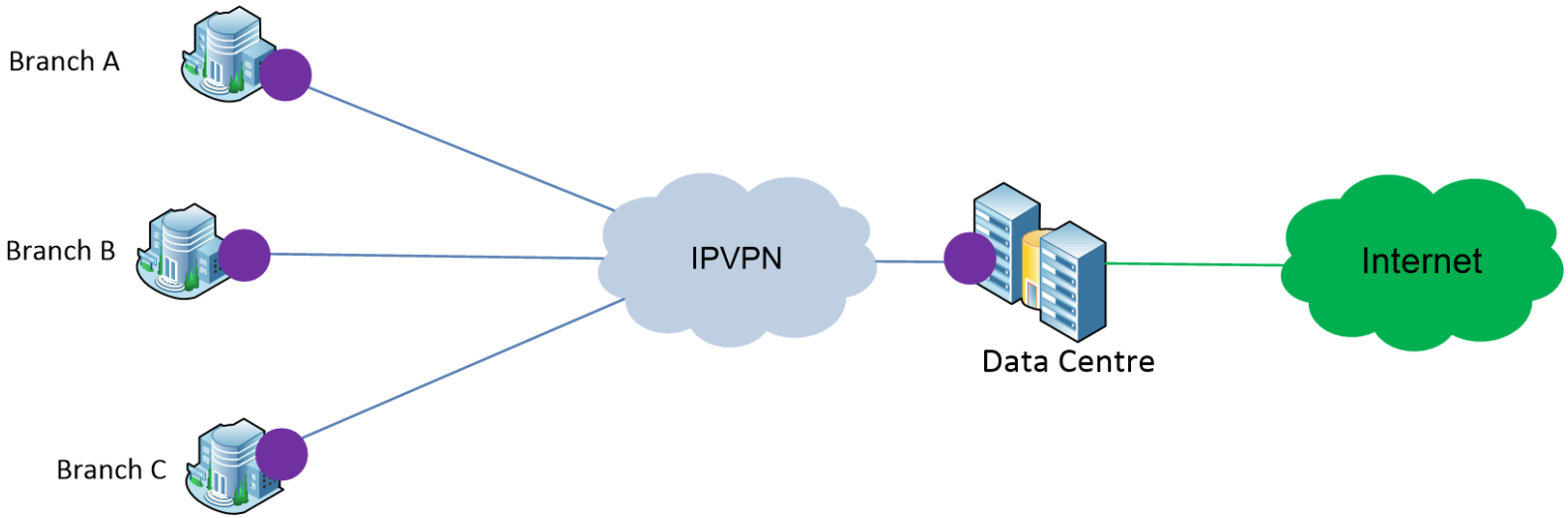
Deploy

- Ship Hardware
- Implement
- Build SD-WAN Overlays
- Monitor

SD-WAN Implementation

Post-Deploy Phase Logical Configuration

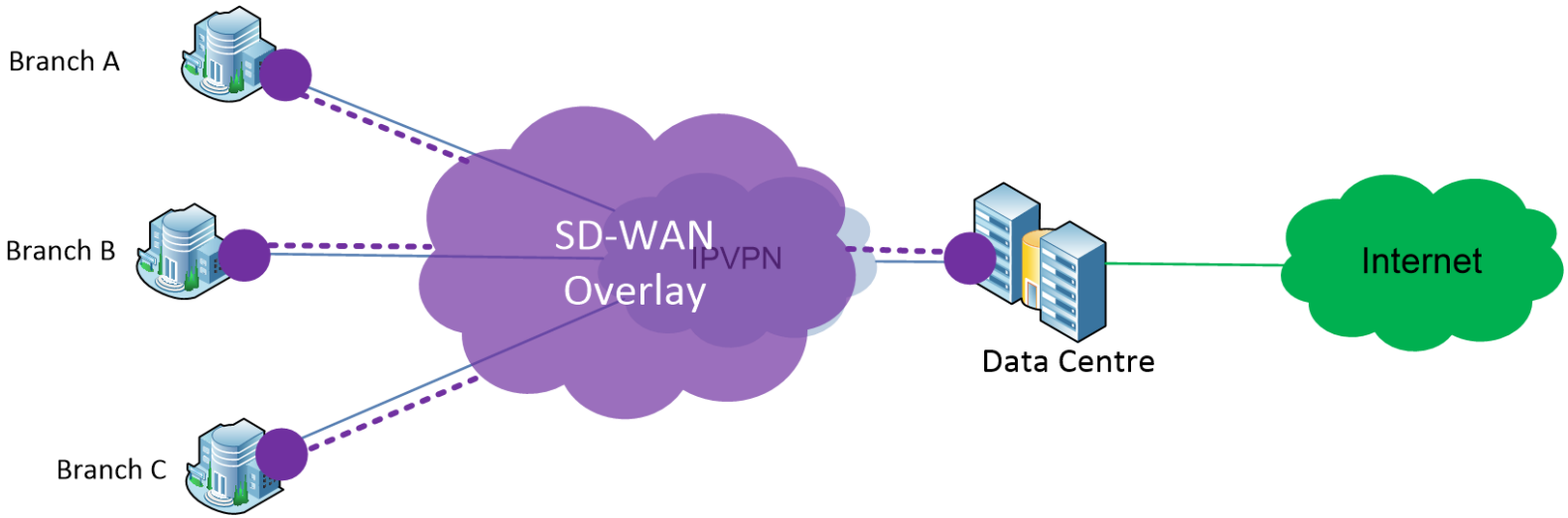
SD-WAN Deployed



SD-WAN Implementation

Post-Deploy Phase Logical Configuration

Overlays Built



SD-WAN Implementation

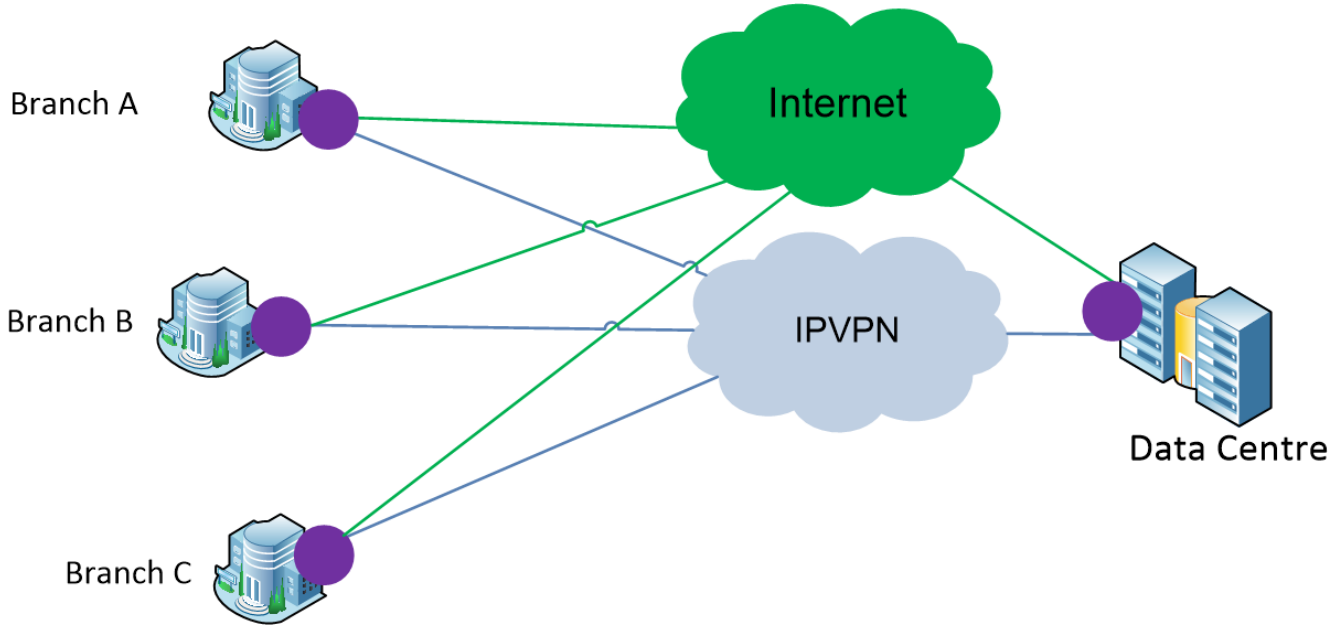
Implementation Approach

Step 1	Step 2	Step 3	Step 4
Assess	**Deploy**	**Optimise**	**Decommission**
• Technical Survey • Project WAN Changes • Deployment Challenges • Scheduling • Conflicting Initiatives	• Ship Hardware • Implement • Build SD-WAN Overlays • Monitor	• Analyse Traffic • Provision New WAN • Fine Tune SD-WAN Policies	• Retire Legacy WAN • Communicate Improvements

SD-WAN Implementation

Post-Optimise Phase Logical Configuration

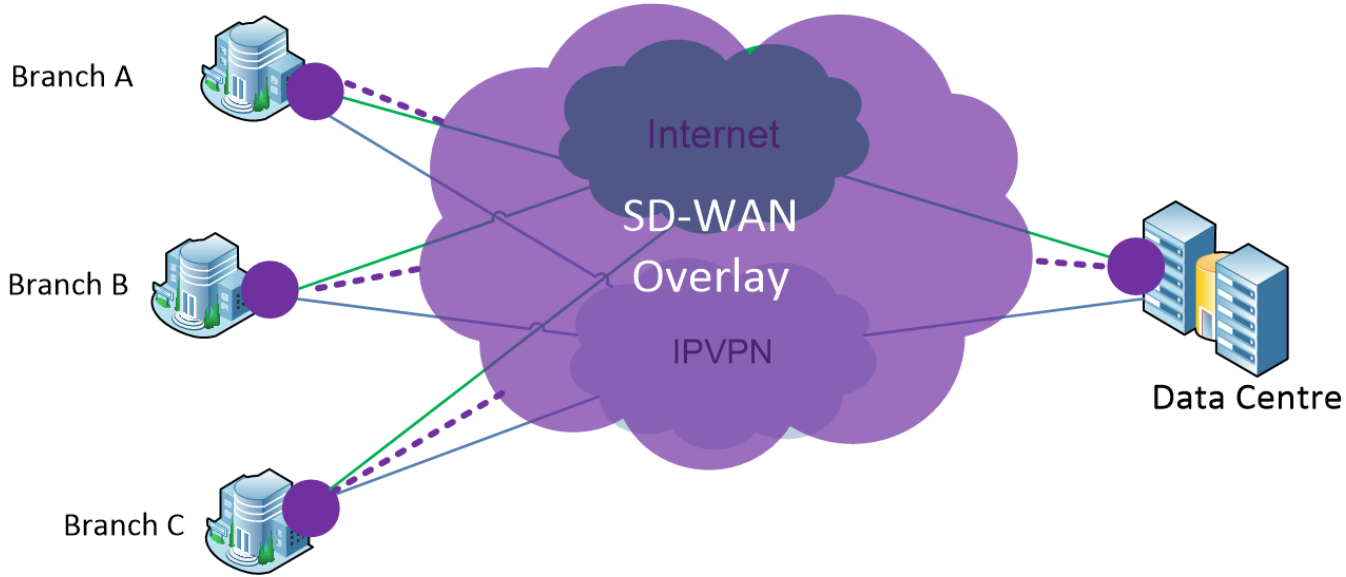
Hybrid State



SD-WAN Implementation

Post-Optimise Phase Logical Configuration

Overlays Built



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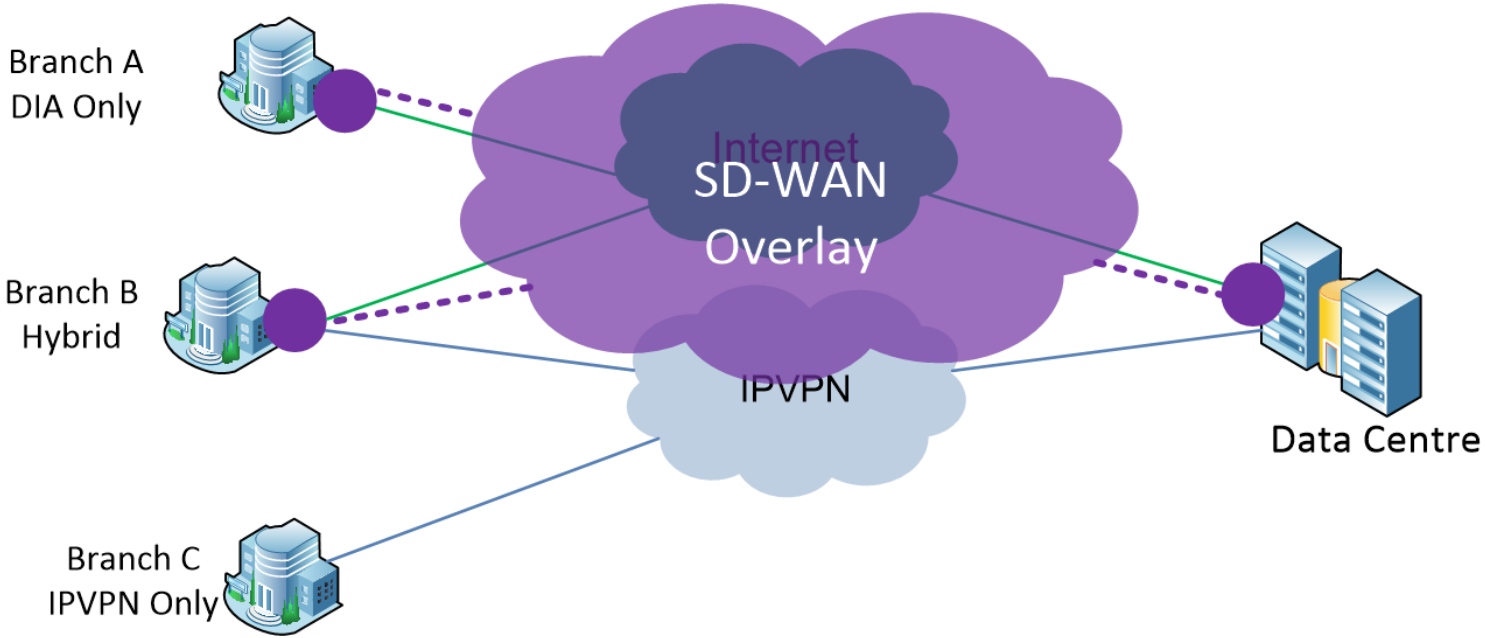
Technical Challenges

SD-WAN Implementation

Technical Challenges

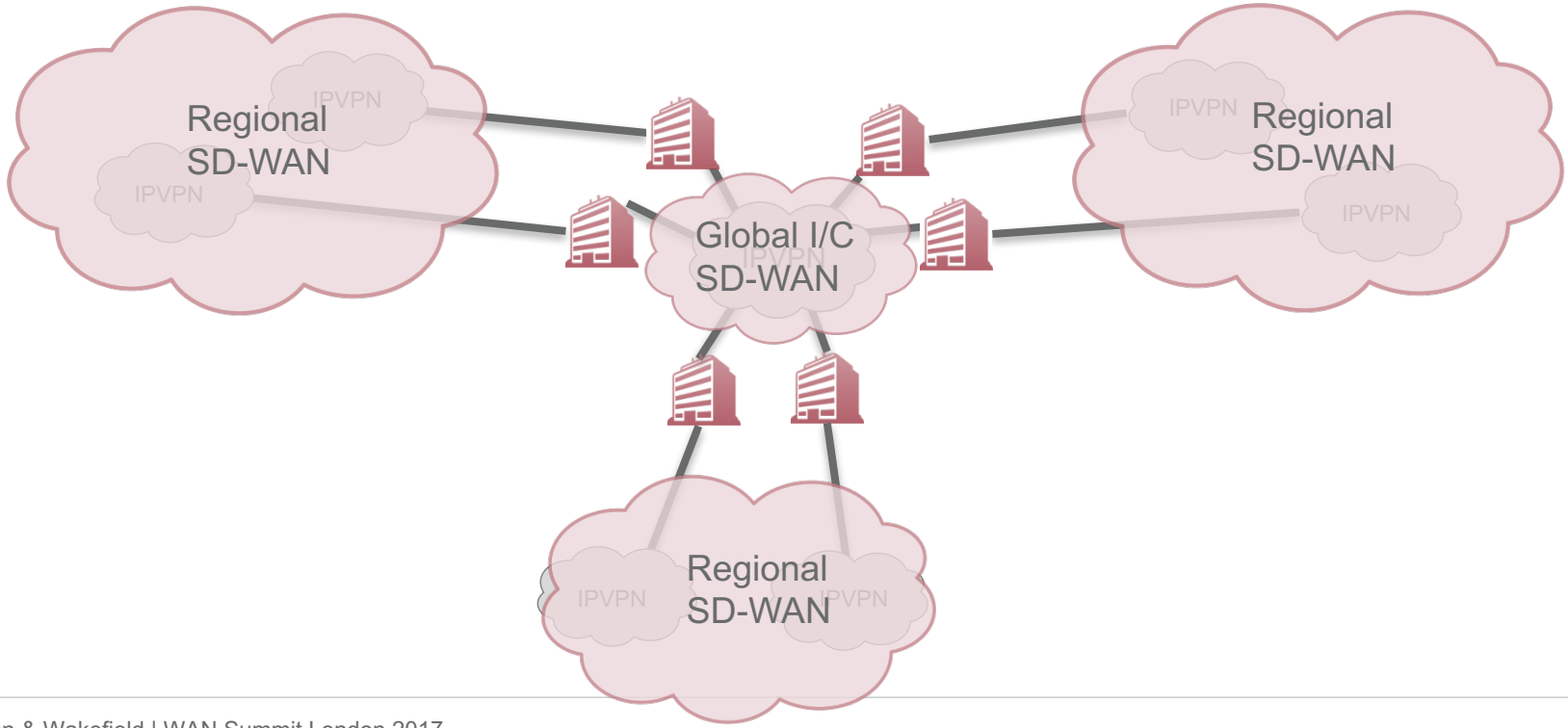
Supporting Mixed State Deployment



SD-WAN Implementation

Technical Challenges

Overlay Size

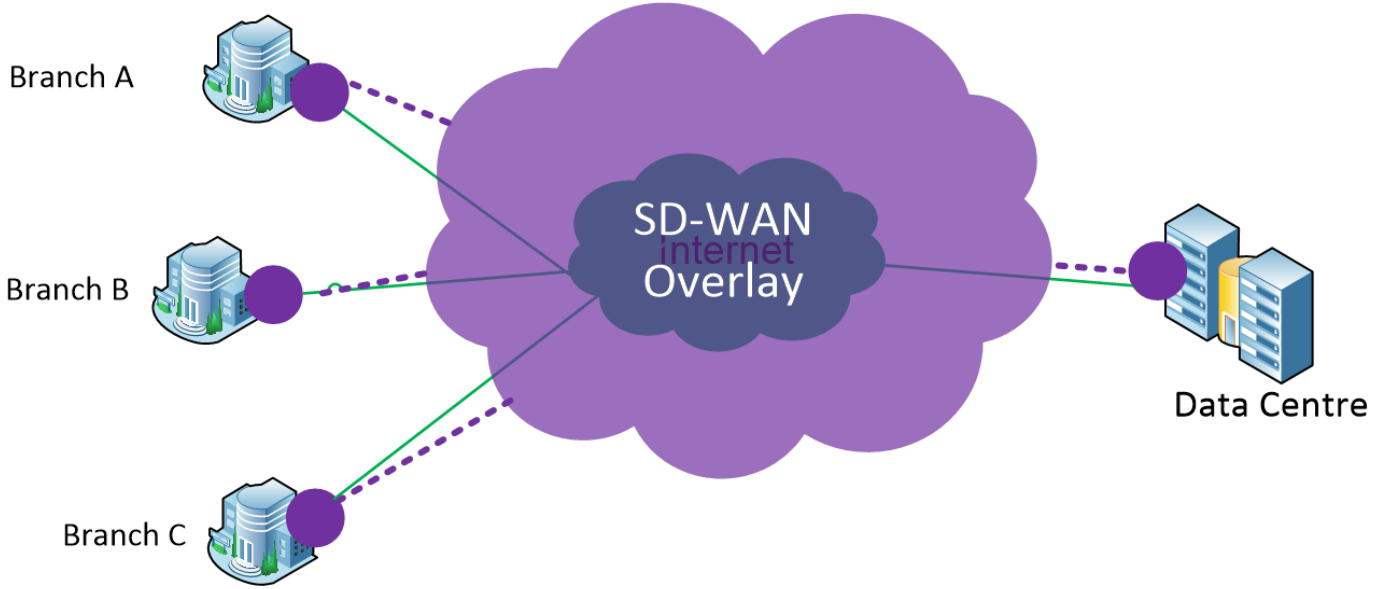


Future Expectations

SD-WAN Implementation

Future Expectations

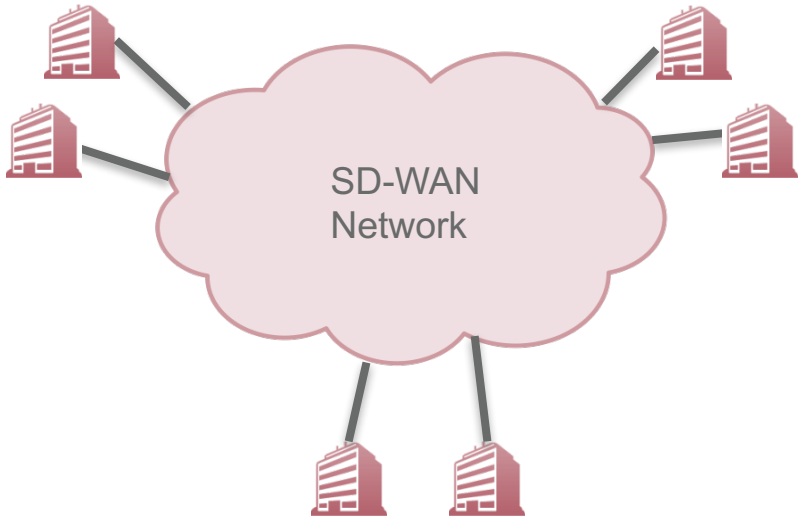
Internet Only



SD-WAN Implementation

Future Expectations

Simplified Global Network



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Q & A

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