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SD WAN in Banking and Financial Services

Cloud as the driver for..

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SD WAN is finally gathering momentum in the Banking and Financial Services market, driven by the need to migrate services to the cloud to deliver a better customer experience. The industry has been slow to adopt compared to other sectors, losing out on the chance for a cost efficient network with improved visibility and easier management, instead sticking with more traditional networks.

The need for B&FS firms to move to a more customer centric, digital model, as well as the pressures brought about as a result of the pandemic and the need to manage a highly distributed workforce has meant cloud adoption in B&FS is accelerating.

SD WAN is now also set to become a key enabler. The need for greater flexibility, scalability and managing a highly distributed set of applications and services across internal data centres and cloud providers means firms can accelerate the move to a more digital and client centric model. The main barriers around adoption of SD WAN technology have been:

- **Security** – Confidentiality and security of financial and personal data is paramount and B&FS firms cannot afford the risk of a security breach. New technologies such as Secure Access Edge (SASE) makes it possible to integrate cloud and SD WAN together to create a zero trust strategy. This is a security approach based on micro-segmentation enabling visibility and control of everything moving across the network.
- **Regulatory and compliance** – Many financial services regulators require financial data for B&FS customers stay in their home country. Certain compliance regulations require that data not be intermixed with other data on shared platforms or infrastructure.

Having control and confidence over the data is of critical importance. SD WAN can centralise the network processing and management. This makes it easier for firms to implement and maintain network policies across all locations ensuring compliance with government regulations.

- **Return on investment** – Additional security hardware was often required with earlier SD WAN technologies. This extra investment, together with the overhead costs of implementing and running specialised security equipment, made business cases hard to justify. It also did not scale in a cost effective manner. Return on investment cases can be improved because SD WAN offers high-end encryption across the network. This integrated security can also automate threat detection and mitigation allowing for traffic to pass on an any-to-any basis as opposed to via a Data Centre acting as a hub. This embedded encryption and security make business cases for the adoption of SD WAN more attractive.
- **Corporate trust** – Trust within banks has been relatively low as they were accustomed to dedicated infrastructure, network equipment and monitoring capability. As test environments and hybrid workforce requirements have accelerated, this allowed a massive shift in digital strategies to allow a multi-cloud and hybrid based model.

This improved visibility, greater control & security together with more attractive business cases means B&FS firms can adopt SD WAN as part of an end-to-end, embedded infrastructure and accelerate the move to a more customer centric and digital model.

Cloud – the use case accelerating adoption

The SD WAN market is growing at an exponential rate. According to Omdia it is set to grow in spend across Enterprise firms from \$5.5b in 2021 to \$10.7b by 2027¹. The rate of SD WAN adoption across B&FS has been slow but is set to accelerate over the next 18 months. SD WAN has matured much more now as a technology as compared with five years ago and has demonstrated its value to those early adopters. Traditionally many B&FS firms have used a build vs buy approach - leading to a proliferation of expensive investments in data centres, IT infrastructure and other assets. Now, however, many applications have been migrated to the cloud and the journey is only accelerating as best practise and repeatable process for these migrations are well understood. A recent survey by Publicis Sapient showed that the majority of retail and commercial banks aim to triple their use of cloud services by 2025, and migrate more client-facing applications and data to the cloud². Google also recently found that 83% of those surveyed are deploying cloud technology as part of their primary computing infrastructures. Of those using cloud technology, the most popular architecture of choice is hybrid (38%), followed by single cloud (28%), and multicloud (17%)³. Notably, of respondents without a multicloud deployment, 88% reported they are considering adopting a multicloud strategy in the next 12 months



What's driving cloud adoption in B&FS

Cost savings and usage based billing – Cloud allows B&FS firms to turn a large up front capital expenditure into a smaller on-going operational cost. There is no need for heavy investment in new hardware and software. In addition, the unique nature of cloud computing allows firms to pick and choose the services required on a pay-as-you go basis.

- **Business Continuity** – The Cloud provider is responsible for managing the technology so firms gain a higher level of data protection, fault tolerance and disaster recovery. It also provides a high level of redundancy and back up at a lower price than traditional managed solutions. In addition, the flexibility of cloud allows scalability. Financial institutions can build resiliency in matter of minutes as opposed to days/months when building dedicated disaster recovery sites.
- **Business Agility and Focus** – The flexibility of cloud services lets firms experience shorter development cycles for new products. This supports a faster and more efficient response to the needs of banking customers. Due to the on-demand nature of cloud, fewer infrastructure investments are required, saving initial set up time and new product developments can move forward without capital investment. Cloud also allows firms to move non-critical services including software patches, maintenance and other computing issues. As a result, firms can focus more on the business of financial services and not IT.

- **Fintech** – There are Fintechs now that are gathering scale and are purely cloud based. They are not burdened with expensive and complicated legacy systems and by virtue of this are naturally digital and client centric with inherent agility. Traditional B&FS firms need to pivot their models to remain relevant and to retain and grow their market share.
- **Green IT** – B&FS can also use cloud to transfer their services to a virtual environment that reduces the energy consumption and carbon footprint that comes from setting up physical infrastructure. In turn this leads to more efficient utilisation of computing power and less idle time

Delivering new apps and services that drive customer engagement – Due to the nature of cloud and SASE, customers can deploy and scale at the same time to drive customer engagement. They can modernise customer-facing applications and optimise through omni-channel customer engagement.

With B&FS firms moving more services to varied cloud providers, the need to align this with an effective SD WAN strategy is of increasing importance. Often the true benefits and a greater end user experience are not being realised. That's because the traditional WAN was not designed to support a more highly distributed set of services and applications across different data centres and cloud service providers. B&FS firms now need a more agile technology that at the same time allows for complete control and transparency and can deliver a greater end user experience. This is where the deployment of the right SD WAN solution becomes critically important.

Why SD WAN for cloud in the Banking and Financial Services Sector

- **Bandwidth efficiency** - Using internet connectivity and simplifying the network infrastructure in place of MPLS and ethernet services can result in reduced costs. SD WAN will provide greater visibility and control meaning bandwidth can be used more efficiently. Local internet breakout can also be configured, ensuring cloud traffic takes the optimum route for a better end user experience.
- **Achieving scalability through automation** - Virtual Network Functions (VNF) as part of a SD WAN solution mean you can automate changes on your infrastructure at remote sites. It also means reducing the amount of physical hardware and drastically reducing the need for the amount of local updates.
- **Enabling the new digital future** - Digital transformation through a distributed cloud model opens up new possibilities and ways for B&FS firms to work. Turning big data into actionable insights, automating this process to provide a greater customer experience and enabling end users to access serves and applications required to perform their work regardless of location or device are all now expected. How you bring this together in a flexible, secure,

controlled and workable way can be underpinned by the right SD WAN solution based on your specific needs.

- **Safeguard data** - Security is a huge priority for B&FS firms and reputations are at risk. Regulators have expressed concerns over the B&FS sector migrating all of their services and sensitive data to a single cloud provider. Maintaining the integrity of the data and adopting a multi-cloud strategy de-risks the approach but firms still need to ensure they remain compliant when moving to new cloud technologies. Organisations will have capability to prevent data loss, provide secure access and mitigate any potential threats on the company's systems.
- **Easy to deploy and manage** - The on-demand and scalable nature of cloud allows seamless migration from current legacy/dedicated environment to a scalable and elastic platform. During the pandemic we witnessed that dedicated VPNs resulted in bottlenecks that hampering productivity and compromised security. This can be mitigated fully by deployment of cloud-based secure gateways across the globe thereby eliminating latency and performance issues.
- **Leverage partner ecosystem** - By embedding network and capability within multi-cloud environments, firms open up an array of potential partners within cloud, security, network optimisation and more that will allow lower dependence on a single vendor. There is also the opportunity for end-to-end APIs for full automation.
- **Increase productivity/use experience for workforce** - SD-WAN provides the visibility and flexibility that allows employees to work from anywhere, ensuring a good user experience on critical applications whilst data is monitored to ensure security isn't compromised.

High levels of regulation exist within the B&FS Industry so compliance is key when deciding on the adoption of any future technology. In the past, additional infrastructure security layers were required. This was costly to procure and run due to the additional expertise and consequential overheads to manage in life. It also meant adopting remote and hybrid was more challenging because more end points were introduced across the network, creating additional overhead operational overhead, complexity and cost to remain compliant.

SD WAN can now seriously be considered because of the SASE approach that combines SD WAN and cloud native security tools to deliver protected network access to the source or edge connection. The only way to successfully procure and deploy a SD WAN service for B&FS firms is to align the network and security needs of the business so they are viewed holistically, purchased and then deployed as one integrated solution. This means a consistent security policy can be extended to wherever a network needs to be. The complexity of doing this should not be underestimated but when achieved is an enabler for SD WAN and running more applications in the cloud.

Ultimately you can bring remote access security, policy management, threat prevention and full content inspection into one place where a dashboard gives complete visibility. The value of this is a reduction in operational costs as well as the ability to diagnose and resolve network and security issues much faster. It is for these reasons SD WAN is a technology seeing rapid growth and this is set to continue for the foreseeable future.

Colt have a pedigree in Banking and Financial Services that goes back 30 years. We can work to devise the best solution for your business from our eco-system of partners, helping you navigate the complexity of designing a compliant solution. Colt has a dedicated team for service design and operations to implement SD WAN solutions specifically designed for B&FS customers. Colt has also achieved the prestigious MEF 3.0 certification for SD WAN and has over 50+ MEF

certified SD WAN experts. Overall, Colt has a mature SD WAN product, people and processes in place to securely and reliably support BFSI customers in their journey of digital transformation.



Enabling network transformation for a pan-European bank

Through Colt SD WAN and close collaboration with the Colt team, a leading multinational technology corporation was able to provide their customer with an agile, secure, future-proof network solution to overcome their business challenges and succeed in a fast-changing world.

The customer was faced with the challenge of finding the right solution for their end-customer, a pan-European commercial bank, to transform a network spanning across Germany and other international locations – connecting nearly 400 bank branches, corporate locations and data centres.

The challenge lay not only in the scale of the solution, but also in the customer's requirement to balance both price and performance and in overcoming a negative experience with their previous network service provider. All services will be supplied with a huge focus on security, not only of the network estate itself, but also the end customer data, and the governance processes around them.

Colt's internal teams worked closely with both the customer and key technology partner Versa to design, propose, negotiate and finalise a solution that would address the end-customer's complex requirements.

The final solution that closed the deal includes a dedicated and independent Versa-powered SD WAN platform, secured by a Firewall function. Colt also delivered a hybrid underlay network that can evolve to meet the customer's future needs. The solution also includes a full professional service suite from Colt, including Premium Network Services, Service and Contract Management support in Germany and Italy, with Project Management support being delivered in-region also.

After months of non-stop development post-contract, the core build project was successfully completed ahead of the baseline date.

The future for SD WAN in Banking & Financial Services

SD WAN and its direction is no different to anything else in the world of technology; it is becoming cloud native and cloud deployed. Multi-cloud is invariably the future for SD WAN, given the numerous capabilities of the cloud mentioned already such as flexibility, scalability, performance, economics, reliability and the security.

Also the world of hybrid or remote working is here to stay as many employers embrace a greater work life balance for their employees, and employees move further away from a traditional way of working. This means that cloud native technology will become increasingly vital.

Different connectivity models such as 5G will also become important as a major mobility driver connecting different SD WAN platforms and hyperscalers through the cloud. Other emerging technologies such as Artificial Intelligence (AI), Machine Learning (ML) and Blockchain will further enhance the transition to a more client centric, digital operating model and drive additional efficiencies not to mention opportunities to improve the customer experience for B&FS firms.

It is a never ending process and new and emerging technologies like SD WAN are changing the way we live our daily lives. Those B&FS firms that adopt this technology as part of a wider digital transformation strategy will gain a competitive advantage now and for years to come.



About Colt

Colt strives to transform the way the world works through the power of connectivity. The Colt IQ Network connects 1,000+ data centres across Europe, Asia and North America's largest business hubs, with over 29,000 on net buildings and growing.network optimisation and more that will allow lower dependence on a single vendor. There is also the opportunity for end-to-end APIs for full automation.

For more information,

get in touch with us at www.colt.net/contact-us

To learn more about our SD WAN services,
visit <https://www.colt.net/product/sd-wan/>

Or if you are interested in our secure,
latency-sensitive capital market solutions,
head to <https://www.colt.net/solutions/capital-markets/>