



THE SMART BRANCH

Digital acceleration services for Smarter Workplaces in Middle East

Abstract

Digital disruption is the most discussed topic in this era of what is popularly termed the 4th Industrial Revolution and it has brought in a sea change in the way an organization works or delivers its goods and services to their end customers. We are now in an era where the largest movie businesses do not own movie theatres (Netflix), the largest taxi company in the globe owns no car (Uber) and the largest real estate & hospitality company does not own any real estate or hotels (Airbnb). At the same time, there are many traditional businesses that continue to transform on a 2-Speed IT (McKinsey) / Bi-modal IT (Gartner) way.

Digital transformation (DX) has also redefined workplaces with Wi-Fi First approach and Bring Your Own Device (BYOD), leveraging connectedness, staff fluidity and democratization via smartphones and IoT. To compete in this digital economy, organizations in the Middle East are witnessing seismic shifts in organizational structure, strategy and technology to provide seamless experience to its employees and customers.

Microland takes a look at the challenges and the solutions to setting up a smarter workplace. We approach the evolution of 'Smart Branch' operations by leveraging five digital accelerators.



Software Defined Everything (SDx)

In a world of hyper-convergence and virtualization of the datacenter environment, the entire fabric of enterprise architecture is getting transformed into a software defined programmable platform. SDx as a platform encompasses the features of Software-Defined Network (SDN), Software-Defined Storage (SDS) and also Software-Defined Compute (SDC) for virtualization of servers, processors and memory.

The new architecture eliminated the dependency on physical servers and storage devices and shifted IT infrastructure to an agile platform. The choice and sizing of the hosting environment now depends on public and private cloud platforms, wherein the organization can optimally move application workloads across the cloud.

According to eMarketer's Global Media Intelligence report¹, smartphone usage has gone up in the Middle East. 75% of the population in Saudi Arabia, over 90% in UAE and 86% in Kuwait use an advanced handset. The growth of omni-channel marketing is pushing businesses to redefine their business models to a customer-centric approach. Legacy systems are getting consolidated and modernized with a primary focus on cost optimization and increased operational agility. Meanwhile, new-age digital business models are being developed for generating alternative revenue streams and improving customer and employee experience.

UAE is reported to be falling in line with global trends and 46% UAE CIOs are either "already engaged in digital transformation or in the process of evaluating their transformation strategies", as per IDC's 2018 CIO Summit Survey². CIOs looking to lead digital transformation would require approaching their IT infrastructure from a business perspective, transforming to a digital platform. The digital ecosystem would help employees connect across business units, accelerate new product development by leveraging competencies, rapid prototyping and effective resource management.

¹https://m.gulfnews.com/business/sectors/technology/smartphone-usage-rockets-across-middle-east-and-africa-1.1585002

²https://www.etisalat.ae/en/system/docs/business/pdf/en/idc_white_paper.pdf



5 Digital Accelerators for a Modern Branch

1.SECURE & AGILE ACCESS TO CENTRAL DATACENTER / CLOUD

The majority of branch Wide Area Networks (WAN) today are constructed using an architecture that was thought appropriate many years ago. From remote branch spokes, all traffic is sent over private transport to centralized hubs for processing. The branches of the enterprise world are connected via heavy duty proprietary network CPEs (Customer Premise Equipment) with high maintenance overheads and costly asset refresh cycles. They are limited by hardware capacity for effective scale up/ramp down needs of today's dynamic businesses. In this model, bandwidth usage increases year on year, making transport one of the highest operational costs borne by the CIO.

With the explosion of cloud apps, the need for centralized data center is eliminated. It's time to move to a new WAN model – one that offers a scalable design with flexible user experience and application usage-based bandwidth sizing. A mix of MPLS and broadband with an integrated security model at the core of the enterprise WAN is the need of the hour. With growing deployment of application-based services and IoT, the network must be as agile and "always-available-on-demand."

Platform and hardware independence is also required for a successful WAN. Traditionally, an organization's network environment has been plagued by overdependence on proprietary network hardware & platforms with high CAPEX and OPEX investment requirements and painful asset refresh cycles. SDWAN, which brings in COTS x-86 white box appliance in place of a traditional router, removes such dependencies and gives the control back to the hands of the CIO in terms of choice, scalability of network environments and, faster deployments, in pace with dynamic business environments at a far lower operations costs.

Hence, a Software Defined Network (SDN) paradigm in general and SDWAN in particular, becomes a powerful digital accelerator with clear business outcomes & benefits as highlighted below:

Commodity Hardware	 Move to white box appliances 70-80% savings in Capex CPEs starting at sub \$300/CPE 	
Lower OpEx Zero-touch Provisioning & Software Agility	 Self-service, no truck rolls or specialized personnel required 50–60% savings in Opex Instant deployment 	
Reduce complexity Branch Security, WAN- OP and Visibility	 Branch security, WAN optimization to reduce appliance sprawl Network, application and security level visibility 3rd party service delivery options Single pane of management via dashboards 	
Better Application	 Application experience based traffic steering Lower latency leading to better voice/video experience Select path based on SLA/MOS/codec, etc. 	
Experience		



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the phase 1 of their global network standardization project on SDWAN. Phase 1 covers 1000 locations across the globe. The business benefits

2.SECURE & AGILE INTER-BRANCH & INTRA-BRANCH ACCESS

Growing businesses have offices spread across large campuses and different geographies. The time & cost incurred to realize such a business plan will clearly be impacted by how fast IT departments can set up these branches or their ability to expand or shrink based on business priorities. In the past decade, organizations have adopted the "Wi-Fi First" strategy by building LAN networks that are backed by Wi-Fi.

The next generation Wi-Fi is evolving on a micro-services cloud-based architecture, with embedded AI & ML features and capacity ranging 3.5 GBPS throughput. Al & ML features are today enabling the network to analyze and take auto-heal / self-heal actions proactively & hence cutting down the time & cost complexities associated with troubleshooting. All of these not only provide a great user experience and faster time to market but a clear savings potential from both first-time CAPEX investment and the OPEX perspective to the tune of 30% or more.

Key characteristics of the NextGen Enterprise Wi-Fi:

- 1.Seamless and secure Wi-Fi for a consistent user experience across campus, branches and shuttle buses
- 2.Occupancy and vacancy for detailed analytics of conference rooms and meeting spaces
- 3. Wayfinding to navigate across campus
- 4.Locate employees in an emergency

Advantages of NextGen Enterprise Wi-Fi :



1. Al-Driven Self-Driving

Networks that learn, adapt and are intelligent, requiring less human intervention to operate

Network that have ability to rapidly innovate and adapt to the speed

Resilient by design, built on an architecture that is designed to work

Domain Expertise, powered by Virtual Assistants for helpdesk



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It is about..... User Experience





QUICK FACT

Our cloud-based Wi-Fi solution partner is years ahead of its nearest competition. A pioneer that offers a learning WLAN, designed specifically for the smart device era, it simplifies Wi-Fi operations through automation, event correlation, and predictive recommendations. Handled via purpose-built cloud architecture, it enables highly accurate Bluetooth® LE location services to your mobile devices that enables multitude of use cases such as wayfinding (turn-by-turn directions assistance), check-in visitors automatically and push contextually relevant messages & more – all of which are accomplished without the need for site surveys and physical beacons. Also available is the full visibility into people and connected devices using standards-based Bluetooth® LE that helps in quickly locating employees in case of an emergency, find available conference rooms easily and measure traffic patterns for accurate resource planning.





Wayfinding



Proximity Messaging

3.END USER EXPERIENCE MANAGEMENT OF EMPLOYEES & CUSTOMERS

The endeavor to digitally revamp "the day in the life of an employee in office," is the crux of digital workplace services. Smartphones and tablets have made everything accessible, right from on-boarding, training & induction, web meetings & conferences, project collaboration, extending helpdesk services to branch customers, secure and compliant to regulatory norms and company policies in terms of application usage. As per a recent study by Al Masah Capital, digital initiatives are on the rise in banks, with UAE taking the lead on banking technology implementation. Organizations eliminate the need for devices specific to an office premise by bringing in operational flexibility. Microland provides BYOD service to help organizations in this process.

A few key areas that have a direct and positive impact on end user experience using digital workplace management services are:



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The above services are tightly integrated to an ITIL process framework and mapped onto an enterprise service desk. It provides better end user experience management with the help of chatbots and other proactive support services.

The key benefits of such services are:

- Automation 360: AI-ML embedded & automated services improve first call resolution standards thereby improving user experience by several notches. They also help in cutting down manual dependencies and costs
- Ease of Administration: Offload administrative functions and still take control of branch operations, with a transparent, process compliant, ever-available end user environment
- Optimize Costs by 25-30%: Achieved by a mix of processes, technologies and automation standardization

QUICK FACT

The Largest Retail Banking Company in the Middle-East, head-quartered out of Saudi Arabia, has partnered with Microland to manage its IT landscape of 597 branches and 12000+ users. The service improvement has resulted in overall increase in availability of bank branches by 38%. SLA of above 99.4% for the past 2 years against a target of 98%. Smart spares and inventory management coupled with Microland SIAM framework has not only consolidated the multi-vendor landscape of the bank but it has also led to millions of dollars of savings as well.



4. DIGITAL BUSINESS SERVICES

The ultimate goal of an SDx environment is to provide a service-focused infrastructure that reduces costs, enhances operational agility, and improves end-user experience. The environment eliminates vendor lock-in through the use of COTS x-86 white box hardware, open source software and software-defined paradigm for data center (SDCC).

These transformations also enable the enterprise to run several digital business services at the branches, thereby creating a whole new platform of digital benefits or outcomes. The following is a snapshot of real business benefits one can derive out of these use cases:



The possibilities are endless, the modern digital network platform has the ability to transform the new-age businesses and become a digital accelerator with a clear ROI and an alternate revenue channel. Microland, with a robust partner ecosystem, brings to you the 4th dimension of digital acceleration services in the form of Digital Business Services.

QUICK FACT

Microland has launched MicroLabs™ which shall simulate various user scenarios and can demonstrate real use cases. Alternately, we can run a simulated POC or even a controlled environment POC at your premise.



5.SMART BRANCH – AN INTEGRATED MICROLAND SOLUTION

At each layer of IT from a branch perspective whether be it WAN, LAN or End Users, the branch of today is also transforming itself into a smarter version which is possible through our digital accelerators. Companies worldwide are in the process of transformation of the whole enterprise IT stack or at least couple of the layers so that they remain competitive in the modern digital marketplace. Interestingly not many service providers and even buyer organizations are looking at it in silos and a lot of awareness and education is imminent. Microland is a thought leader in digital transformation space and has already taken the lead in this journey.

The objective of transformation in a digital world is driven more by business objectives like customer/user experience, TCO reduction and achieve economies of scale & scope. Digital transformation is not a one-time activity or a small one-off project; it is indeed a journey of continuous discovery and improvement. Considerable investment in terms of time, people/ culture and money is required to reap true benefits. Hence, it is important to have a framework to create a working template for all the interconnect-ing layers. This has led Microland to create an integrated and well-orchestrated service delivery model ("as-a-service") for a truly Smart Branch!

	Disparate Technologies & Services	smartBranch solutions
Branch Edge	Router UTM Firewall SD-WAN MPLS Internet	Collapse to a single cloud managed appliance
Branch Network	Wired Network Wireless Access Point	Managed from a single Cloud based platform
Branch IT	Image: NAS DHCP DNS File & Print Services Cray and the services Cray and the services	Collapse to a single cloud managed appliance
End User Devices	Printer Laptop Desktop Mobile Tablet Non IT devices	Single window Desk side support Services

Our offerings are aligned to the digital journey of a typical enterprise customer based on the organization's business priorities. Each layer provides not only a NextGen digital acceleration platform, but also provides an Intelligent IT Operations transformation (IT-OT) platform. The platform has proactive monitoring and self-heal capabilities using the concepts from Artificial Intelligence and Machine Learning. It automatically triggers a ticket to be opened in the smart service desk that works with all standard industry leading tools/technologies. Microland also provides an in-house ITIL compliant ITSM tool called SmartCenter[™]. The service takes a "service desk up" approach in automation of workplace management with chatbots & AI. It is coupled with transformation at the technology layers of network and end user devices for an AI and ML led proactive and preventive maintenance. This makes the entire approach to IT Operations of a modern branch more proactive, resilient, intelligent on a 360-degree basis.



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To provide a complete end to end solution for smart branch as a service at a global level, Microland tests and simulates technology platforms against common customer use cases at our center of innovation - MicroLabs[™]. We interweave smart service design framework and link it up with free global advisories from the center. The following diagram tries to explain how this shapes up to be your smart branch operation's 5th Digital Accelerator.

Integrated automation and orchestration



The benefits of an integrated service design framework are:

- Better economies of scale and higher savings potential by almost 5-10% over and above the individual accelerator led savings
- Better governance and singular accountability
- Higher efficiencies of technology leverage
- Higher scope of effective digital innovation
- More flexibility and control to the enterprise

Conclusion

Digital transformation has transformed the role of a CIO from back-end support to a business enabler. Mobility being the biggest disruptor, new strategies is being adopted to manage end-user experience of the millennial mindset. Through this document we explain the approaches required to be adopted by organizations to deliver digital services and develop an agile environment to respond to business growth / de-growth plans. The goal being to run branch environments of a modern enterprise as a true "Smart Branch" & on "as-a-service" business models.



About the author



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Arindam Sengupta is responsible for Microland's business in the Middle East. He has over 20 years of experience across a spectrum of management and leadership roles in the IT Services industry. Prior to joining Microland, he was Director, Middle East & Turkey for a leading Indian IT services provider. He is known for his passion and perseverance in bringing hyper growth through digital innovation, local collaboration and building a strong team, as well as for his deep grasp of the market dynamics of the Middle East region. He was featured among the top 100 executives in the Middle East region by Forbes. Arindam is an Economics graduate and has a post graduate degree in management.

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About Microland

Microland accelerates the digital transformation journey for global enterprises enabling them to deliver high-value business outcomes and superior customer experience. Headquartered in Bangalore, India, Microland has more than 3,800 professionals across its offices in Australia, Europe, India, Middle East and North America. Microland partners with global enterprises to help them become more agile and innovative by integrating emerging technologies and applying automation, analytics and predictive intelligence to business processes.

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