MICROLAND®
Making digital happen

The case for transforming operations as an imperative along the broader digital transformation journey

Microland defines a key point along the journey to **network as a utility**

What modernization of compute teaches about the future of network as utility

To understand how best to build the bridge to network as a service, we looked to the past when compute made the leap from legacy to utility. The innovators of that leap AWS, in large part had the foresight to treat all aspects of compute servers, network, security as a singular platform – integrating them all in the move to the cloud. They focused on infrastructure as code and hyper-automation and transformed them into a cohesive ecosystem, rather than independent teams and siloed tech stacks. This approach enabled I&O managers to focus on app-specific or business process-specific goals supported by underlying automation while driving unprecedented levels of agility.

The Evolution of Network Operations

Platform-led Automated Ops Deliver Reliable & Resilient Digital Infrastructure

Standardization & Control →

	Manual Ops LEGACY STATE	**Automating Ops** CURRENT STATE	**Automated Ops** NEW STATE
Network Type	CLI based devices	Hybrid Network	Homogenous Network
Tools	Monitoring	Visibility	Observability
Incident Trigger	Reactive	Proactive	Predictive & Preventive
Incident Handling	Expertise & SOP	Point Automation	Automated Fix
Change Handling	Manual Scripting & Execution	Partial Automation	As a Code
Measurement	Availability	Mean Time To Resolve	XLAs / User Experience
Skill Set	Routing & Switching	Python & Ansible	Jenkins, Terraform, Kubernetes
Service Improvement	Slow & Limited	Limited	Constant
	Platform First Journey — Innovate & Amplify **Scenario**: Access issue between end-user and critical application **Assumption**: Root cause is oversaturated backup transport link		
Detection	Reactive – End User or IT *Hours*	Proactive Threshold Breach *15 to 30 minutes*	Instant – Anomaly Detection *<5 minutes*
Diagnostics	Siloed Teams *Hours*	Siloed Teams *30 minutes to 2 Hours*	Tool isolates failover *<5 minutes*
Resolution	Manual Failover / Provision *Hours to Weeks*	Pre-Defined or New Policy *> 45 minutes*	Adaptive Policy *<5 minutes*

The first crucial step toward making network as a service a reality

Every enterprise CIO has a vision for leading their organization on the journey to becoming a thoroughly digitized enterprise. And because the network is the golden thread that connects users to their apps and data, to compute, and to clients — it's not possible to become a digital enterprise without a modern network.

Once this modern network achieves the state of being always performant, flexible, secure, and compliant it will essentially operate as utility – instantaneously ramping up or down in response to the needs of the enterprise. Just as we experienced the power that was unleashed when compute became a utility, so too, will we experience tremendous advancements in digital fluidity when the network becomes a utility.

While this vision of Network as a Service is quite compelling, the truth is that it's still in a relatively immature state when compared with a true commercial-consumption model, in part because 5G, which will enable network slicing and remove the need for physical connectivity, is not yet fully available to the enterprise.

This leaves most enterprises needing to squeeze more value out of the technology they have. For those enterprises that have already executed a transformation to software-defined networks which is still only a bit above half, some agility and efficiency benefits can come from the technology itself. However, what most organizations fail to realize is that much larger gains can be realized via improved quality of service delivery by focusing on modernizing or transforming operations. This can be readily achieved by implementing significant workflow automation and uncovering important insights through analytics.

Think about it. One of the most frustrating and time-consuming aspects of network management is dealing with incident response and the cascading effects when a fix in one place causes undesired effects elsewhere in the system.

How often have you pondered *"What just happened? I had an incident. I thought I figured out what caused it. To address the problem, I made a change in the network that I was sure would be fine and instead I've created even more havoc."*

These challenges have nothing to do with technology and everything to do with operations.

You can have the best technology in the world at your fingertips best car, smart phone, fighter jet, toaster, etc. but how you use and operate it is more important than the robustness of the technology. If you can't make it operational, best-of-breed technology does you no good. In fact, it can be a drain on time, budget, and, frankly, emotional stability.

For this reason, Microland strongly believes the **step forward with the immediate payoff of enhancing your network environment in the best way possible – without overly taxing budgets – is the transformation of operations as part of a broader digital transformation journey.**

Microland can put you on the path to network utility faster than anyone else

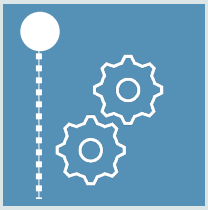
The definition of a digitized enterprise

A digital enterprise intentionally integrates digital tools, analytics, and automation into the hundreds of thousands of moving parts that comprise a day in the life of a global enterprise. The result is continual improvement in efficiency, insight, employee and customer experiences, competitive stance, and business value generated.

We can help you figure out how to make the best use of your current technology, put you on the path to the utility through operations transformation, and then extend that digital journey for you.

Regardless of your networking environment, we advise these steps in this order, as you digitize the operational transformation process — particularly if you are a legacy enterprise.

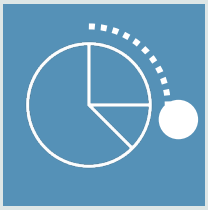
Step 1: Modernize & Standardize



If you haven't already transitioned to software-defined network technology, you need to get this done. Historically, the process is quite laborious and can take a year or two to complete as it involves thousands of moving parts people, processes, devices, circuits, tools that need to be implemented to deliver a grander transformation vision. However, the good news is that Microland has built a digitized platform to accelerate such a transformation and can get you there 30% faster with high confidence in meeting due dates.

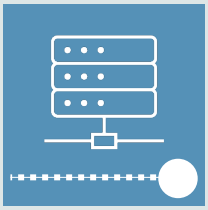
Our recommendation is to perform your transformation as a holistic system and not independently as LAN, WAN, and Cloud Security. As this is deployed, you certainly need to ensure that the configurations are highly standardized as that will yield efficiency and further automation won't be effective if you have material variation in your environment.

Step 2: Enhance Through Automation & Analytics



With a stable base ecosystem in place, you can now elevate your network management performance via the automation of key workflows. Each of your ITIL processes i.e., incident, change, service request, configuration, capacity management still involves manual work despite the implementation of software-defined technology. Microland's Platform Approach modernizes these support processes by automating entire workflows instead of focusing only on basic technical tasks. Implementation and ongoing analysis of key analytics will help drive continuous service improvement by repetitively identifying the source of remaining manual work or problem areas within your network for you to further remediate. Through rigorous management of your automation and analytics, your enterprise will achieve agility and efficiency like none it has seen before.

Step 3: Amplify Through NetDevOps & AIOps



Once you've addressed the first-order, lower-level automation, you will gain even greater efficiency and reduce unintended errors by treating your network as code. By implementing full CI/CD automation of your network, much like you do with your compute, you will receive exponential benefits in agility and stability. A further step toward operating your network as a utility is to then implement much more sophisticated tools like network observability and AI/Ops so that you understand exactly where unexpected variation is happening within your environment or know what's disturbing the health of your critical applications. Microland has both the platform capability and experience to guide you in these areas.

If you're a cloud native organization, you may be able to cruise through the first two steps of standardization and workflow automation because you're starting from scratch, and you've got all these tools.

If you are a legacy enterprise who is so accustomed to siloed management and non-net DevOps then jumping ahead is more change to your team than you're probably ready to do. In this case, Microland will help you iterate through standardization and workflow automation and then we'll get you on the road of preparedness for network as a utility.

Regardless of whether you're a legacy or cloud-native enterprise, integral to this process of automating digital transformation is the on-going collection of data that can be analyzed, allowing an enterprise to measure current impact and predict future impact.

The ultimate goal is for the IT department to have the necessary visibility and automation tools to predict glitches and address them in a self-help/self-heal manner way before any human intervention is required.

Three rules to deliver 10x benefit

While we don't yet know all the eventual components necessary to deliver a true network-as-utility solution, we're positive it begins with applying this platform approach and following these ground rules for meaningful operations transformation.

1

Measure user experience, not network availability

2

Start from scratch with automated ops. If the is not incremental 10X the benefit, then it's a mistake to merely automate current operations processes. You want humans augmenting technology, not the opposite

3

NetDevOps and AI-Ops ensure that incident detection, diagnosis, and resolution happens in minutes – not hours

The value of true partnership along the transformation journey

We're proud to say that with Microland, there's no "black box". In fact, we believe a big part of Microland's value as a transformation partner is our commitment to effectively sharing information with key client team members so that they can take the lead in the future □if desired□. To this same end, we're flexible in how we incorporate internal expertise and work hard to adapt specific enterprise considerations into the overall process of operationalizing digital transformation.

From ISG to Gartner to enterprise prospects and clients, the response is uniform, "I've never seen anything like this before."

Get in touch today

Chat with one of our team members to learn more specifics about how Microland can develop a customized operations transformation roadmap for your enterprise — at absolutely no cost to you and no commitment on your part.

About the Author

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Robert (Bob) Wysocki is the Client Solutions Leader for IT Networks and Cybersecurity. His responsibilities include driving innovation, incubating emerging technologies, and enabling customers to deploy key digital technologies for rapid business and operational transformation.

Bob is a seasoned IT evangelist with over 30 years of industry experience, gained at Fortune 20 as well as start-up organizations. During his 16 years at General Electric (GE), as an executive in Corporate Shared Services IT, he drove strong business results in numerous disciplines of procurement, product management, engineering, operations, and financial management. Bob graduated from Georgia Tech and holds a Masters in Computer Engineering from the University of Central Florida.

About Microland

Microland is “Making digital happen” — allowing technology to do more and intrude less. Our Platform-First solutions for Cloud and Datacenter, Networks, Digital Workplace, Cybersecurity, and Industrial IoT make it easier for enterprises to adopt NextGen digital infrastructure. Microlanders throughout the world ensure this embrace of digital brilliance is predictable, reliable, and stable. Incorporated in 1989 and headquartered in Bengaluru, India, Microland has more than 5,000 digital specialists across offices and delivery centers in Asia, Australia, Europe, Middle East, and North America.

For more information visit www.microland.com or email us at info@microland.com

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