4 Stages of Rapid Network Transformation

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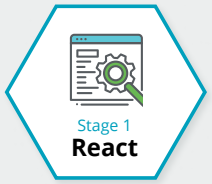
Despite what recent events may have you thinking, enterprise-grade digital transformations don't just happen in response to unforeseen global challenges. Transformation projects are always in motion, on a large and small scale, as technology requirements adapt to the way companies conduct business.

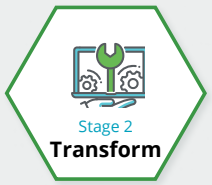
How your support teams interact with customers, for instance, is always evolving with consumer expectations, and the tools and methods for outreach have been in a prolonged evolution for the better part of the last decade, ie. phone support giving way to multi-channel email and live chat. All that recent world events did was accelerate these transitions.

Similarly, businesses have long been working to untether their networks from the confines of the four walls of the main office or headquarters, as cloud tools grew to enable enterprise decentralization in the form of remote offices and work-from-home (WFH) arrangements. While enterprises had approached these transitions with a light touch in the past, they were given no choice but to deploy new workflows for an entirely remote workforce at the drop of a hat in response to the recent global pandemic.

As we partner with our customers throughout their sudden and rapid WFH transformations, we've noticed that these transitions have largely taken place in four stages:



Stage 1 is the React phase, where IT teams recognize the 'fires' on the network and do their best to take control and alleviate the issues they can identify and manage, while taking stock of the problems outside of their grasp.



Stage 2 is the Transform phase, where teams wrap their heads around the parts of their network where they might not have explicit control and evaluate their vendor relationships and identify where performance degradation continues to persist.

Stage 3 is where teams Optimize the processes they adopted to ensure performance in the first two steps, folding them into the long-term network management protocol and establishing a "new normal" that can quickly respond best to last-minute fire drills.

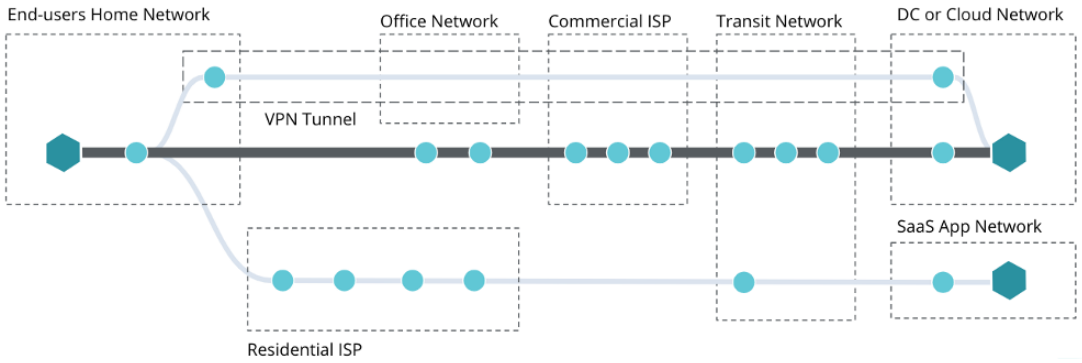
Stage 4 is where teams Evolve their network management for the long term as teams start rotating between the office and WFH. Visibility into user experience becomes increasingly important as a wider array of cloud solutions are deployed to keep teams connected.

So how can you successfully navigate these rapid changes to help support your suddenly transformed and decentralized enterprise network? **Here's a breakdown.**

Stage 1: React

As your users have abruptly transitioned to WFH, you've likely been tasked with solving problems you've never considered before. The key here is to triage the systematic problems, ensuring that key infrastructure and services are working properly for the majority of users, and then addressing one-off issues as resources allow.

A common refrain at this point is the mantra of "Grant me the serenity to control the parts of the network that I can, and accept the parts that I can't..." But that doesn't mean you can just ignore the areas of the network where you lack visibility. Gaining end-to-end visibility across all network stakeholders is key to long-term success, and tracking holes in observability is key at this stage.



QUESTIONS TO ASK:

- What apps are under your control?
- What infrastructure is under your control?
- Can employees access their critical workflows?
- What's slow versus what's outright broken?
- What services are you contracted with?

Critical in identifying these blind spots is the understanding that not all applications will be accessed the same way. Most companies we work with are in some phase of transition from internal and co-location hosted applications to Cloud and SaaS applications, and this dual nature means that both the direct-to internet network paths and VPN network paths need to be monitored — not just one or the other.

GOAL: "TRIAGE" THE NETWORK ITSELF

- Reliant on users to report issues
- Unaware of actual app performance
- Identify Blindspots

CRITICAL VISIBILITY

- Tunnel performance
- Underlay performance
- (User) Last Mile performance

DIA NETWORK PATHS *AND* VPN NETWORK PATHS NEED TO BE MONITORED — NOT JUST ONE OR THE OTHER

Stage 2: Transform

After you've done your best to "stop the bleeding" associated with Stage 1, you need to start actually putting some resolutions in place that go above and beyond "triage." This includes deploying new technologies and undergoing some thoughtful network rearchitecting in critical areas to help make management easier now that the immediate network fires have been put out.

Start by wrapping your head around what it is you do have under control, and the services you're contracting, along with the ISPs delivering internet connectivity to your remote users. Zeroing in with this level of granularity is critical since your remote users may be distributed across the map and service providers (and the quality of service) may vary by location.

When moving from being a network "field hospital" in Stage 1 to giving network metrics to the business like you'll need to do in Stage 2, it becomes critically important to understand who your end users are and their specific needs.

For instance, ensuring VPN access may have been your first goal as part of Step 1, but not all of your users can be served or your workflows deployed effectively via VPN alone.

QUESTIONS TO ASK:

- What does Vendor Performance look like?
- What about for Partnering ISPs?
- Is home wifi adequate at remote locations?

Because you're starting to talk about end-user experience, you're looking at cohorts of users who may have nothing to do with the VPN. For instance, monitoring for cloud-dependent unified communications applications may be more important for users working in customer support than tracking VPN access back to network hubs. On the flip side, IT may want to have at least regional geographic representation of performance to VPN gateways and concentrators, as well as a reasonable sample of the major ISPs that end users are depending on as part of this application path. Now is the time to start collecting all of this information to help inform your long-term planning.

GOAL: WRAP YOUR HEAD AROUND

- What's causing degradation?
- What areas of the network could perform better?
- How will requirements change as office culture returns?

CRITICAL VISIBILITY

- Vendor connections
- All ISP network handoffs
- Remote WiFi performance

COLLECT INFORMATION NOW SO YOU CAN PLAN ACCORDINGLY FOR A VARIETY OF USER EXPERIENCES

Stage 3: Optimize

Stage 3 is where you look to optimize processes, getting out of the reactive mode of operation and establishing a proactive stance for your team where you can detect problems before users call in and deploy a systematic approach to resolution.

This requires that you think through future projects not just from the perspective of your main office, but also through the lens of these remote users. Rethink how you can ensure the access and performance of services, the security of your data, and adherence to compliance regulations as you execute on strategic projects going forward.

This is where your new challenges are calling for you to accept new tooling.

The most critical solution in your toolkit at this stage is leveraging network monitoring that can account for all of the new network connections, stakeholders and pathways that traffic travels as part of your newly rearchitected network layout. This includes gaining visibility into all areas of your network, regardless of what vendors or clouds you partner with to connect your users and applications, to gain a local perspective into user experience regardless of where teams are located.

QUESTIONS TO ASK:

- How do we measure MTTR/MTTI going forward?
- How can we better leverage our partners' strengths?
- Who stays remote?

GOAL: ESTABLISH A FLEXIBLE LONG-TERM STRATEGY

- Optimize processes
- Get proactive about potential user challenges
- Enable visibility out to remote users and vendors

CRITICAL VISIBILITY

- Remote workstations
- Vendors/ISP handoffs
- Main office

YOUR NEW CHALLENGES ARE CALLING FOR YOU TO ACCEPT NEW TOOLING.

Stage 4: Evolve

Stage four is where you start evolving your network management strategy for the long term by taking stock of your new network requirements and reprioritizing your team's long-term projects and budget.

It's important to remember as you enter this stage that as team members start returning to the office, there almost certainly won't be an en-masse reversion back to the "old way" of working: Few companies are going to revert 100 percent back to in-office, and many employees that do intend to go back to the office full time will take a staggered approach, following at least a part-time WFH schedule now that it's been proven effectual.

This mix of in-office and WFH calls for an increase in IT's need to be flexible and support greater network variability. At the crux of much of this is a greater reliance on cloud solutions and Internet connectivity, as these technologies can be deployed relatively quickly and accessed from almost anywhere.

These considerations further hammer home the point that cloud- and vendor-agnostic network performance monitoring represents perhaps the most vital asset in your IT team's toolkit as IT will need to monitor performance into areas of the network they don't control outright.

QUESTIONS TO ASK:

- What will your future hybrid Office/WFH network look like?
- How do you ensure that WFH-era network changes weren't wasted effort?
- How do you manage last-mile connectivity like residential ISPs and home WiFi?

This also takes some of the onus off of tech initiatives that had previously been in motion to support the “old way” of office-centric working -- or at least forces these projects to change shape. SD-WAN, for instance, may have been a top priority when networks were distributed across a footprint of several remote offices, as opposed to dozens (if not hundreds) of WFH workstations. While you won’t want to completely shut down your in-motion SD-WAN projects, you may want to reallocate some of the budget to more flexible CASB solutions, for instance, which similarly centralize management and help move traffic along secure tunnels to limit the likelihood of data leakage when users WFH.

You’ll also need to ensure that the all-important network monitoring you have in place continues to deliver performance insights as the network evolves. This means deploying a solution that can continue collecting performance data even as you rethink priorities and explore new solutions, acting as a true partner for your network’s continued transformation.

AppNeta’s 4-D approach to network performance monitoring helps ensure that whenever sudden IT projects take priority, end user performance is never compromised.

SCHEDULE A DEMO TODAY

Learn how AppNeta has partnered with leading enterprise network teams to navigate these challenges and come out on the other side of their rapid transformation stronger than ever.

ABOUT APPNETA

AppNeta is the only network performance monitoring solution that delivers deep, actionable, end-to-end network performance data from the end-user perspective. With AppNeta's SaaS-based solution, IT and Network Ops teams at large, distributed enterprises can quickly pinpoint issues that affect network and business-critical cloud application performance, regardless of where they occur. AppNeta is trusted by some of the biggest Fortune 1000 companies, including 3 out of the 5 largest corporations in the world, as well as 4 out of the 5 largest cloud providers.

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