

By Clementine Wall, Program Manager

The past year has reinforced certain important fundamentals – no matter how much triumph or adversity is experienced, maintaining a strong relationship is key to any long-term partnership, specifically as pertains to our customers. There are certain basic ingredients that simply do not change – such as communicating regularly and often, managing expectations, and always ensuring respect is maintained throughout all interaction.

In late 2020 at the height of the pandemic, Salesforce conducted its “State of the Connected Customer” 4th Edition survey and received over 15,000 global responses. There were a number of pertinent insights they uncovered, including the following:

- **80%** of customers agree that the experiences provided by a company are as important to them as its products and services, meaning the quality of a company’s customer experience has a direct impact on their potential for business success
- **90%** of customers indicated a company’s trustworthiness is directly linked to how it acts during a crisis
- **91%** of customers confirmed they are more likely to do business again with a company which provides a positive customer service experience

It is much easier to manage any relationship when everything is going well, but how do we build a long term customer relationship that weathers the inevitable challenges that will come our way, as in any normal relationship? As a leader, it is important to have a toolkit of strategies to turn to that will foster successful customer engagement, strengthen the relationship, and keep your delivery on track. With that in mind, I have listed below for your consideration some strategic suggestions that I have learned are key to building a strong customer partnership.

Address Problems Directly – Issues will arise and challenges are inevitable, yet while your instinct may be to avoid communicating while trying to solve problems internally, the best approach is to address issues head on and approach your customer directly. Not only does this give them the opportunity to explain the situation from their perspective, it gives you a chance to ask questions and fully understand their point of view.

If you ever receive a request that seems unclear or unreasonable, take a moment to reflect and **Step Into Their Shoes**. Are they getting pressure from their boss or other stakeholders to deliver a project they feel is in jeopardy? Do they lack confidence in the proposed approach because they don’t understand it? It will take some courage to work through these types of challenges, but it’s an important first step to ensuring you truly understand their concerns.

Often, simply assuring your customer that their concerns are heard and understood goes a long way to calming a volatile situation while building confidence that their

success is your team’s highest priority.

However, **Don’t Offer Solutions Immediately**. While the temptation is to begin offering solutions to allay concerns, this can backfire. First, if your customer expresses a strong opinion, it is natural to feel defensive and want to set the record straight. However, this will likely escalate the situation, thus making things worse. Instead, demonstrate that you understand what they are saying and that you will follow up with solutions. **Step Away** to (remember this?) **Step Into Their Shoes** and analyze things from their perspective. This will give you time to formulate a comprehensive and measurable approach without needing to think on your feet or engage in the moment.

As quickly as you can, **Offer Measurable Steps Toward Improvement**. Set up a follow up conversation where you recap the specific issues or concerns and lay out your plan to achieve the desired state. By outlining concrete actions rather than vague promises to make changes, you have a baseline that you can measure progress against, therefore demonstrating your ability to effectively manage the situation and build trust.

- Make sure these actions are achievable! Often, you only get one shot at fixing a challenging situation so make sure you create a path for success by outlining a plan that you can bring to fruition.

Next, be prepared to **Follow Up**. A one-off meeting can lay the groundwork, but continued check-ins against the metrics and actions that you specified are the key to building trust and confidence in your ability to create lasting solutions, and thus an ongoing partnership. Schedule recurring updates where you can demonstrate progress against your plan and show your continued commitment to resolving issues. By building the trust and confidence of your customer, you are positioned as a key partner to help them achieve their goals.

And finally, and perhaps most importantly, **Don’t Take It Personally**. Poise, professionalism, and letting your work speak for itself are all traits that will serve you well and ensure you manage your engagements – and relationships – successfully.

At the end of the day, we faithfully show our customers that their mission challenges are our passion, and consistently execute with excellence to lay a solid foundation that builds ongoing trust and a mature, long term relationship.



Turning **VISION** into **ACTION**®

CHAIRMAN’S NOTE

Dear Friends:

ActionNet leverages DevSecOps expertise to create a State-of-the-Art Network Operations Center (NOC) with a suite of tools for monitoring Datacenter and Cloud Networks. This design leverages security tools and the ServiceNow IT Operations Manager (ITOM) to provide Proactive Monitoring and Capacity Planning.

Technology Expertise and Service Delivery Excellence start with developing close partnerships with our customers, whose Missions are our Missions. Listening, engagement and transparency are the hallmarks of becoming a trusted partner and establishing long term relationships. We look forward to the Summer Season and the ability to collaborate more in person.

Please take care of yourselves and each other!

Ashley W. Chen
Chairman & CEO

IN THIS ISSUE

- ActionNet Named a 2021 Washington Post Top Workplace 3
- Developing Trusted Partnerships with Customers 4

Network Operations Center/Cell Considerations in Physical or Cloud-Based Environments

By Michael Vinogradsky, Network Architect and Kate Russell, Program Manager

Designing a Network Operations Center (NOC) to support various customer missions includes customer-specific considerations. ActionNet’s experience and expertise in this area provides best practices for establishing and operating a NOC that (aside from the physical space design) can be considered if you are supporting your customers with the instantiation of a NOC.



In the following example, ActionNet provides a state-of-the-art Network Operations Center for a high-profile federal customer we support. ActionNet’s NOC implements a suite of vendor agnostic and proprietary tools to monitor and support the network. The NOC tools are implemented based on their capability to monitor datacenter and cloud networks.

Team Structure

Team structure includes multiple tiers of escalation support to provide rapid responses for network incidents and events. Tickets are escalated based on predefined metrics to expedite mean-time-to-repair objectives and exceed Service Level Agreements. We developed nimble NOC workflow processes through various engagement – exceeding the customer’s expectations. The customer now has the option to open a ticket through the custom-built ServiceNow support portal or our monitoring tools alert the NOC to proactively respond to anomalous events. Ultimately, the NOC is in the middle of all network activities and provides valuable insight into the health of the network.

The NOC Watch Officer oversees the NOC with the primary role to monitor the health of the NOC itself and address any obstacles the NOC may encounter.

Tools

The NOC uses various tools to monitor and support the

- Founded in 1998, ActioNeters in 40+ States
 - Overall Customer Retention Rate > 98%
 - Annualized Professional Staff Retention Rate > 92%
- CMMI®-DEV Level 4 Certified
- CMMI®-SVC Level 4 Certified
- HDI Certified Support Center
- ISO 20000 (ITSM), ISO 27001 (Information Security) and ISO 9001 (Quality) Registered
- GWAC and IDIQ Contract Vehicles
 - GSA Alliant 2
 - GSA IT Schedule 70 (MAS)
 - GSA QASIS Pool 1
 - NIH CIO-SP3 SB OTSB
 - NIH CIO-SP3 8a OTSB
 - DISA Encore III
 - Air Force NETCENTS-2
 - ARMY ITES-3S
 - HHS SPARC
 - NAVY Seaport-NxG
 - NRC GLINDA
 - US Courts JMAS IV
- “92 out of 100” Rating from Open Ratings
- “Exceeds Customer Expectations” from D&B
- “5A1” the Highest Financial Rating from D&B
- Certified Earned Value Management (EVM) System
- DoD Top Secret Facility Clearance with Secret Safeguarding Capability
- Named Washington Post Top Workplace 8 Years since 2014



“We faithfully show our customers that their mission challenges are our passion, and consistently execute with excellence to lay a solid foundation that builds ongoing trust and a mature, long term relationship.”



ActioNews®, the newsletter of ActioNet, Inc. is published to provide examples and applications of cutting edge IT topics and practices.

ActioNews® is published quarterly (March, June, September and December) as a service to its staff, customers, and potential customers.

ActioNews Staff

Lead Designer

Ajia Allen

Contributing Authors

Michael Vinogradsky
Kate Russell
Clementine Wall

ActioNet grants permission to educators and academic libraries to use ActioNews® for classroom purposes. There is no charge to these institutions provided they give credit to the author, ActioNews®, and ActioNet. All others must request permission at actionews@actionet.com.

ActioNet, Inc.
2600 Park Tower Drive
Suite 1000
Vienna, VA 22180
www.actionet.com
info@actionet.com

Copyright © 2021 by ActioNet, Inc.

“ActioNet’s DevSecOps practice team, extends their operations principals into the NOC services to deliver custom built services and work around limitations typically seen in monitoring tools.”

Network Operations Center/Cell Considerations in Physical or Cloud-Based Environments continued from page 1

network. The NOC tools consist of traditional and modern solutions. Specifically, where legacy nodes have limited monitoring capabilities, the NOC uses traditional monitoring protocols. On the other hand, in cases where deeper telemetric monitoring is required, the NOC implements modern API driven monitoring tools.

The NOC tools approach uses a suite of multivendor monitoring tools, rather than a single vendor to avoid vendor security and supply chain failures as the industry has experienced in recent years.

Log aggregation is often a common function that is implemented across all services in an organization. Enough information about the collection agent, destination, and application log formats should be included as well.

Direct links to the log aggregation web interface are provided whenever possible, including links to commonly used saved searches. Any commonly run queries are documented here, along with a brief description of how and when they are used. Anything that makes it easier for Operations to identify issues or narrow their investigation saves time during an outage.

Most applications implement some sort of authentication and access control to ensure that only valid users have access to information that is appropriate for their role. At a minimum, this section should describe how the application is configured to perform access control. For example, it might provide the LDAP connection information, location of the configuration, and any special roles or permissions required for administration of the application.

➤ The objective of this section is to make it quick and easy for Operations to identify what went wrong with the system if someone is not able to authenticate or does not have access to resources. It also identifies what administrative users can be contacted if special permissions are needed to investigate an issue.

Applications that receive or produce data often have automated cleanup processes that remove obsolete data to ensure that the system continues to perform well over time. For example, a time series database might delete data older than 30 days, or a binary repository might purge artifacts that conform to a specific set of rules. This section describes the automated processes and the rules that determine what is deleted.

When a disk alert is received from your monitoring system, this section provides instructions about what actions are taken to

provide immediate short-term relief. If the filesystem is 100% full it may be necessary to take immediate action to cleanly shut down the application, increase the storage, and bring the application back online. In other cases, it may be possible to clear caches or execute cleanup scripts to bring disk, memory, or CPU usage back under control. Documenting how and when these cleanup activities should be executed saves critical time with system alert responses.

Application tuning can take many forms. In the Java world, it is typically a set of Java Virtual Machine (JVM) arguments that define the memory limits or the garbage collection strategy. In the database world, it may be a set of configuration parameters that define the number of concurrent network connections, long running query restrictions, or other characteristics.

➤ This section provides enough information for the reader to understand where and how those parameters can be changed, as well as any rules of thumb for how they can be tuned for this application to resolve common issues. For example, if the application owners have developed guidelines for how to optimize the memory allocation based on the number of users, concurrent requests, or other observable data, that calculation can be provided here so the Operations team has guidelines on what is or is not appropriate.

Automation

Automation is used to respond and take action on critical events, specifically where instant response is required. ActioNet’s DevSecOps practice team, extends their operations principals into the NOC services. DevSecOps allows the NOC to deliver custom built services and work around limitations typically seen in monitoring tools.

Some examples include, CloudWatch Logs are used to track various log activities. The log dashboard was broken into 3 sections... Expected API calls to monitor expected traffic...error logs to identify issues that need to be fixed...and potential attacks which can be immediately actioned to prevent break ins and intrusions. Alerts are associated with the different sections which notify the appropriate teams in real time should something need action.

Another example is metric utilization monitoring. Here ActioNet used CloudWatch to monitor critical metrics for EC2 instances, setting alerts at specific levels to initiate appropriate actions to prevent service

ActioNet Named a 2021 Washington Post Top Workplace - Eighth Year in a Row!

ActioNet, Inc. is pleased to announce that it has been named one of The Washington Post’s 2021 Top Workplaces in the Washington, D.C. area for the **Eighth Year in a Row**, one of only a few companies that have received this honor since the inception of the Program! Selection is based solely on employee feedback gathered through an anonymous third-party survey administered by research partner Energage, LLC, which measured several aspects of workplace culture, including alignment, execution, and connection.

This year’s list honors more than 150 companies including government contractors, law firms, nonprofits, schools, and businesses. “Consistency is very important in how we treat our employees, our customers and each other, as well as supporting our communities. In an otherwise challenging year for everyone, we have never wavered on that commitment. Together, we will continue to make a difference,” said Jeffrey D. Abish, President & CAO.



degradation or outages. Additionally, these metrics allow for future planning for growth or alternatively to determine reduction in resources to gain efficiency and to save costs to the customer.

ActioNet implemented Nagios to have a single pane of glass view of the up/down state of client environments. Alerting is also associated with Nagios dashboards and provide NOC personnel a means of identifying potential failures rapidly. ActioNet also planned for the future by selecting tools that integrate well with other monitoring and security tools and which allow for expansion and flexibility.

ActioNet also planned for the future by selecting tools that integrate well with other monitoring and security tools and which allow for expansion and flexibility.

Finally, ActioNet is delivering the ServiceNow IT Operations Manager (ITOM) capability to the client, which will predict issues, reduce user impacts, and automate resolutions with AIOps with API connections into ServiceNow of the client’s current and future monitoring capabilities.

Proactive Monitoring

ActioNet’s NOC’s mission is to provide a proactive monitoring and response service. The NOC strives to monitor the environment and respond proactively before something breaks. One of our objectives is to be ready to

match a customer reported issue with an issue that we had already identified. So when the customer reports a problem we can quickly correlate the issue and provide a factual response, rather than learn about the issue for the first time.

For example, if NOC identifies that an interface started dropping packets, the application performance may be slightly degraded. This issue would not cause an immediate performance impact and it can go unnoticed for months. However, over time as more traffic traverses that interface the performance degradation would become more noticeable. This anomaly can be identified by a properly configured monitoring tool and fixed proactively. However, usually this type of issue gets escalated, then identified and resolved by higher tier engineers, after weeks of troubleshooting.

Performance Baselining

The ActioNet NOC baselines the normal state of the network to monitor network performance. The purpose of the NOC, assuming this role is for capacity planning, is to correlate the current state baseline performance with future projects and changes. For example, if a firewall’s CPU utilization runs at an average rate of 50%, and there is a plan to add additional AWS VPC’s, the NOC has the visibility to flag this ahead of time and share the risk with leadership and application owners.

“Consistency is very important in how we treat our employees, our customers and each other, as well as supporting our communities. In an otherwise challenging year for everyone, we have never wavered on that commitment. Together, we will continue to make a difference.”

