

Advanced Monitoring and Reporting an Introduction

A WHITEPAPER BY

[deft]

Introduction

If you've ever tried installing, configuring, and maintaining monitoring tools across your devices, services, and applications, you know what a daunting task it is. For each device in your network, you have to know:

- What needs to be monitored
- How to collect the right data
- How to display that data in a useful, visual form
- What alert thresholds should be set at
- How to setup escalating alert chains, remediation, etc .

It is increasingly difficult to keep up with all the change that happens in today's increasingly complex IT environments.

Everything's always fine if you have no idea what's wrong

To achieve maximum business continuity, where employees don't call wondering why they can't access their email, or where your website doesn't suddenly take forever to load causing visitors to leave, costing you in revenue/reputation, you need Deft's Managed Monitoring and Reporting to deliver.

Be alerted to issues before they cost you in revenue or reputation

With maintenance-free hosted architecture, Deft dramatically reduces the complexity and staff time required to achieve—and maintain—effective monitoring.

- Whether you are operating virtual machines, 100s of cloud instances, SANs, or database instances, you'll have peace of mind knowing they are monitored 24x7x365 without adding to your workload
- You have less to manage, and pay for
- Greater convenience
- No backup or availability worries
- Few companies implement high availability monitoring with disaster recovery internally
- As your systems grow, we will be there with you to scale your monitoring and keep everything aligned with your business

Monitoring and Reporting - An Overview

In the IT world, uptime is the name of the game—and Deft Advanced Monitoring and Reporting keeps you in it. In many cases, customized monitoring solutions will be required to ensure optimal functionality of computing systems and network devices.

Logistics

Our 24x7x365 Service Desk continuously monitors system health using industry-standard monitoring software, which detects any changes to your monitored environment and alerts us of potential service-impacting conditions. System events are immediately processed by the Service Desk, who contact individuals as specified by the customer, and follow prearranged workflows to isolate, contain, and restore service long before reaching critical status.

- Device, service, and application monitoring
- Network Operations Center primary point of contact and triage
- Portal-based reports, trending, and analysis
- Customer-defined event response and remediation
- Monitoring system implemented
- Event escalates to Service Desk technicians for analysis and remediation
- Proactive response to warnings before they reach critical status
- Detailed trending graphs pinpoint recurring fault causes for any service on any platform

Two Styles of Service Delivery

- Hands off: “We received this alert. Want us to help?”
- Hands on: “We received this alert and are fixing the problem right now.”

Monitoring In Action

Managed products are monitored by in-house monitoring applications as well as off-site products. We monitor all the vital components of hardware and software to ensure smooth functionality. In general, we can monitor anything that has an IP address, whether the system is behind a firewall or not, and whether it's a custom application or obscure hardware. Our monitors receive data via industry-standard SNMP trap, SNMP poll, WMI, vendor-specific API calls, and a host of other methods depending on the data source. This allows us to see when a customer might need to consider upgrading to a higher model device or adjust the way they handle traffic as we keep historical data for trending. Monitor alerts are dispatched to our Service Desk for triage and appropriate escalation.

On-Site-Spares/Software

We maintain cold spare hardware for every managed product we sell. Should a device under management exhibit symptoms that suggest a hardware fault, systems administrators will work with our Service Desk and the customer to swap the hardware out during a maintenance window. Similarly, should a device fail unexpectedly, replacement hardware is on-site, ensuring quick service restoration.

All hardware we sell, lease, or provide in managed services is supported by our monitoring solutions.

A Selection of What We Monitor

Our Advanced Monitoring and Reporting Service covers a lot. Some, but not all, of the things we can also monitor, track performance details for, generate reports, and offer customers graphs to visualize performance trends include, but are not limited to:

- Application: Java Application: Tomcat,
- Application: Zookeeper
- Application: Microsoft Exchange
- Application: Postfix Mail Server
- Application: Memcached
- Application: Apache web server
- Application: nginx/lighttpd web server
- OS: Microsoft Windows Server family
- OS: Unix: AIX, FreeBSD, Linux
- OS: Microsoft Clustering
- Network: Cisco product line (switches, routers, firewalls)
- Network: Juniper product line (switches, routers, firewalls)
- Network: Netscreen, SonicWall firewalls
- Database: MongoDB
- Database: MySQL
- Database: Postgres
- Database: Microsoft SQL Server
- Storage: EqualLogic
- Storage: HP SAN/NAS
- Storage: NetApp filers
- Storage: Promise/PERC host RAID controllers • Load Balancers: F5 BigIP
- Load Balancers: Kemp LoadMaster
- Load Balancers: Netscaler
- Load Balancers: Barracuda Networks
- Virtualization: VMware
- Virtualization: Xen
- Hardware: HP, Dell, IBM, Hitachi, Cisco, Juniper, EMC, EquaLogic, NetApp, others

Getting Started

Deft provides 24/7/365, multi-site, redundant monitoring with options for customized event resolution in addition to custom-developed probes for customer specific applications.

Initial Setup

- Scope of systems and services to be monitored
- Baseline performance metrics are established

Implementation

Deft engineers develop probes and monitors for customer-specific applications which continuously check to determine current status: OK, warning, error, critical.

You are then informed of any service-impacting conditions immediately according to the following pre-defined rules:

Alert Delivery Methods

Options include e-mail and in the web portal.

Alert Routing

Create escalation rules based on type of device and severity of issue. If custom alert routing methods are required, don't worry. We can work with you to be sure it's covered.

Alert Escalation

If specified escalation requirements exist for your business, we'll work together to be sure it's covered.

Alert Management

You have the option to manage the alert or have our Service Desk technicians and engineers address the issue for you.

Customer Communications

Deft's Service Desk are first responders to incidents and alerts. Depending on the nature of the occurrence, remediation will be managed by the Service Desk, systems administration, or IP engineering team.

Notification

Notification to the customer will be in form of:

- Direct phone call to the technical contact(s) on the customer list, which is the first method of communication after it is determined a device is unresponsive
- Email notification from our ticketing system after a new ticket is opened by Operations to all the contacts on the customer contact list
- On critical issues, updates are provided within 1 hour after initial contact to the customer

Escalations

As managed services are run by a dedicated group of system administrators, nearly all tickets related to managed services are immediately escalated to the Managed Services team. Any issue of critical importance is immediately escalated via telephone or in a manner predetermined by the customer. Non-critical questions or change requests are handled by the Service Desk team or escalated during business hours as appropriate. Deft's escalation tree includes various members from the technology and executive management teams including, but not limited to:

1st Level

- Engineering Support Administrators

2nd Level

- Engineering Support Leads
- Engineering Support Manager

3rd Level

- Senior of Delivery

4th Level

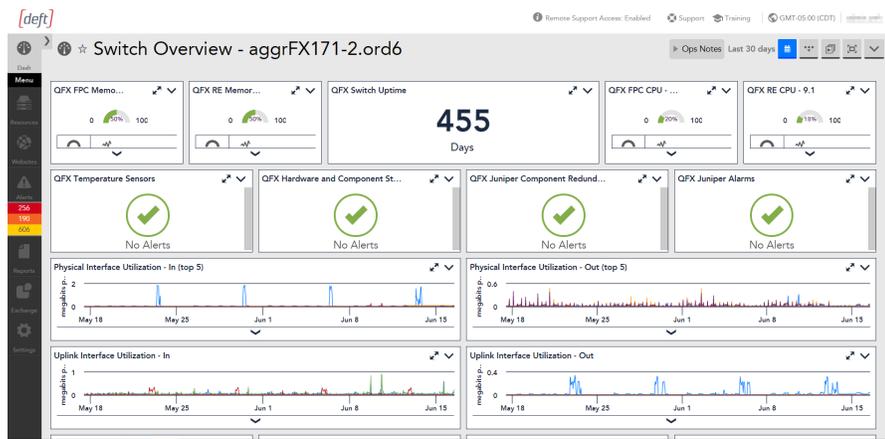
- Chief Solutions Officer

Examples of Escalated Situations

- All alerts, alerts matching specific conditions, or alerts contained within certain operational groups
- Ongoing denial of service attacks
- Systems are not 100% operational
- Customer reports packet loss, a network issue, or high ping times
- Customer cannot access their equipment or has been locked out during an outage
- System or network configuration issues on managed or unmanaged hardware

Networks, Servers, Applications, Storage All Monitored in a Single Portal

With all the interaction between layers in today's increasingly complex infrastructures, trying to troubleshoot performance issues with a hodgepodge of point solutions that don't talk to each other is inefficient, and ineffective. Our monitoring and reporting services provide a complete picture of your entire infrastructure from a single console, making it easy to pinpoint the cause and resolve your issue faster. This end-to-end view simplifies management and troubleshooting.



How It Works

Even though our Monitoring and Reporting is a hosted service, you do not need to allow our servers unfettered access through your firewalls. Our Service works with session-aware outbound access for in-guest monitoring. A small collector running inside your enterprise's firewall collects and sends data via encrypted SSL to Deft servers running in our secured Data Centers for processing and alerting.

Performance graphs are viewable from your portal, which you access from any browser. Notifications to you (or our Service Desk technicians) of any alerts that need attention generate from our servers so that even if your network goes down, you will still receive alerts (as opposed to premise-based monitoring where if the network goes down, so does your monitoring system).

Customizable Dashboards

Our Monitoring and Reporting lets you easily create and share custom views that show what matters to you. Users can create their own dashboards, which can be shared, or kept private. With role-based access control, administrators define which users can see which dashboards.

Dashboards can display a variety of objects individual host graphs, custom graphs which show multiple hosts on the same graph, flexible widgets, even video.

A Service Desk Widget even offers colored indicator lights that give an at-a-glance health status of all host groups, along with a summary of all alerts for each host group.

Custom Graphs

Whether you wish to see storage usage of all business units in your enterprise, across multiple Data Centers or other necessary reports, our Monitor and Reporting allows you to create custom graphs to plot desired information quickly and easily.

Interactive Trending Graphs

Our Monitor and Reporting utilizes interactive trending graphics to provide faster troubleshooting, quicker problem resolution through the following capabilities:

- Zoom in or out to see trends over different time frames, from 1 year to the last 10 minutes
- Add or remove lines from the graph, to help you isolate the data you are interested in
- Automatically rescale with the displayed data
- Mouse-over to see the exact value of any data point at any time
- Download the data underlying a graph whenever needed

Top 10 Overview Graphs

Trying to identify performance issues on hosts with multiple objects (interfaces, volumes, VIPs, etc.) is difficult and time-consuming if you can only view each object individually.

Our Monitor and Reporting automatically generates overview graphs allow you to view the top 10 objects on a single graph, making it much easier to spot issues. Overview graphs are commonly used to provide at-a-glance information about volume performance on a SAN, VIP performance on load balancers, memory usage on virtual machines, etc. They can also be split into multiple graphs and grouped. And like all of our Monitor and Reporting configurations—they update automatically as objects are added to or removed from your Data Center.

This provides simple at-a-glance views of multiple objects so that you can easily see which volume, interface, or virtual IP needs attention.

Support From Deft Is Not Just Availability

One of the advantages of a hosted solution from Deft is access to continuous support. We provide much more than 100% availability uptime—we provide our responsibility for your environment. We will monitor your environment; prevent problems by performing active preventive maintenance, manage the backup and recovery procedures and disaster recovery procedures if applicable.

Response Time

All Deft MSP customers can set the severity level of their support cases. The severity level you select will determine the response time. You can select the following severity levels when submitting a support case:

Infrastructure Administration (Proactive Services)

Severity Level	Description	Response Time SLA
Critical / Level 1	Critical Issues include business-critical system outages or issues causing extreme business impact.	15-minute response time
High / Level 2	High Severity Level issues include the impairment of production systems, impaired application performance, and moderate business impact.	30-minute response time
Normal / Level 3	Normal Severity Level issues include standard service issue requests and minimal business impact.	1-hour response time
Low / Level 4	Low Severity Level issues include general information requests, questions and guidance from Deft MSP team members, arranging pre-scheduled maintenance activities.	4-hour response time
Informational / Level 5	Informational Issues include general questions, how-to style requests, or reports.	24-hour response time

As standard business practice, Deft's Service Desk acknowledges all support cases within 15 minutes of case creation. The response times identified in the table above represent the average time required to remediate such issues. Please note the response time to resolution of your issue may vary based upon circumstances and configurations unique to your business and your cloud architecture. Any support cases created without a severity level selected will be set to "Level 3 – Normal" by default.

Conclusion

If you calculate the cost of the staff time required to deliver the level of monitoring, graphing, alerting and reporting that Deft provides, you could have covered Deft's managed service cost for a full year — if not several.

And that's not taking into account the often-overlooked cost of ongoing system maintenance — backups, patches, upgrades, etc.

Every time there's a change within your infrastructure — a database instance is added, a volume added to a storage array, a virtual machine provisioned — the configuration files must be manually updated. The reality is, that doesn't always happen, which leads to the big reason why Deft is essential for maintaining a trouble-free infrastructure.

Additional Questions

For more information, visit www.deft.com or contact us at (312) 829-1111 and sales@deft.com

About Deft

At Deft, we are our clients' most Trusted Advisor.

The Deft team humanizes technology. We actively listen to our clients, learning and collaborating to develop tailored proposals that perfectly fit your company's needs.

We then design, build, operate, secure, and scale unique technology solutions with a singular purpose: to deftly deliver on the promise of technology for you and your customers.

Learn more at www.deft.com or contact us at (312) 829-1111.