Introduction

Technology promises the world—streamlined infrastructure, instant scalability, seamless cloud migrations, and much more. But technology doesn’t live up to its promise without a 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.

We make a difference for our clients daily. We anticipate your needs, and consistently bring thought leadership and expertise to every encounter.

We push our potential to maximize yours. Growing our skill sets, embracing change, innovating, optimizing, and setting new standards: these are Deft’s core operating principles.

We always find a way forward. Creativity is fundamental to our problem-solving process. Strong, well-informed perspectives guide our strategic decisions and define our products and services.

We care, and we show up. We’re the right partner. We believe in your business and in your ability to succeed. Your issues and needs drive our mission every day.

Deft: the most trusted technology partner since 2000.
Managed Services Partnerships

At Deft, we approach Managed Services Partnerships (MSP) in a unique way.

You’ll see that we use the term Partner instead of Provider. This is because we see Managed Services as a true partnership — and successful MSPs are that — partnerships.

The foundations of success are planning and collaboration. With regular, constructive conversations about business continuity, and its requirements for your business, we can and will deliver success.

Our MSPs focus on delivering tangible value in four distinct phases:

Consult

- We begin with a detailed assessment of your current strategy and environment.
- Everything that can impact your business success is accounted for, including physical infrastructure, individual workloads, server configurations, network architecture, databases, data lakes, security concerns, compliance requirements, and application and business process interdependencies.

Plan, Design and Build

- We then build out a detailed strategy that aligns specifically with your desired business outcomes.
- After agreement on the Plan and Design, we begin building your Managed Network environment. We work with your team so you are fully prepared for operating in your new environment.
- Once aligned, we work with your team to migrate to your environment.

We apply guidance and best practices gained through our operating experience and supported by our partners (AWS, Microsoft Azure, Ciena, Juniper, and more).

Run and Operate

- Now that your environment is successfully migrated and verified as ready for production, we perform proactive management, administration, monitoring, and support in line with our MSP Management Matrix.

Optimize and Evolve

- The final step in a Deft MSP is the ongoing optimization and evolution of your environment.
- As we manage your environment on a day-to-day basis, we will identify opportunities for improvement and continue to make sure your environment still aligns with your business objectives.
- Any opportunities are shared directly with your IT and leadership teams to inform strategy and decisions.

Each phase uniquely supports your business, providing exactly the management you need to ensure success.

We are a trusted partner that is constantly being prescriptive and proactive about changes to your solution based on your needs and the ever-evolving technology landscape.
Service Overview

Deft’s Managed Switch/Router Service is a fully managed service providing dedicated hardware-based switches or routers. The Service includes configuration management, firmware patching and updates, on-site hardware sparing, and full maintenance & support, all monitored 24 x 7 by Deft’s Service Desk. Reporting and documentation are provided through our secure Customer Portal.

Managed Switch/Router Services include high bandwidth devices, offering port speeds from 1 to 100 Gigabits per second. The Service is designed around the customer’s requirements for traffic forwarding, latency, throughput, and scalability. The standard configuration for the Service includes a pair of customer-facing devices configured for high availability. These devices are connected to Deft’s scalable, redundant data center network and core routing infrastructure. Full administration of any device is performed by Deft’s team of network experts. If needed, customers request changes to the Service through Deft’s Customer Portal.

This Service is available to all Deft customers located in a Deft-managed data center, including Colocation, Managed VMware Cloud or Dedicated Servers.

Customers using Deft’s Network Connectivity services are also eligible to use the service.

Key Features

- Hardware configuration designed around customer needs
- High performance switches connected to scalable, low-latency backbone
- Complete configuration & administration by Deft’s network experts
- Advanced Monitoring, including traffic, capacity, performance, and more
- 24x7x365 continuous device health, performance metrics, up/down monitoring, and alerting
- Firmware updates and vendor feature analysis
- Periodic tuning to reassess and adjust performance and effectiveness of the device
- Secure customer portal for monitoring, documentation, ticketing, and other deliverables
Day-to-Day Management

Deft’s Managed Switch and Router Service delivers consistent operations management and predictable results by following industry-standard and proven, internal best-practices. The specific services / management functions offered by Deft as part of the Service include:

**Change Management**
Managed Switch and Router Service provides simple and efficient means to make controlled changes to Client environments. System changes are serviced by the Managed Services Team through support requests. Changes follow a well-defined approval process, and most changes can be executed quickly by Deft’s Managed Services Team.

**Incident Management**
Managed Switch and Router Service includes the monitoring of the overall health of the platform and the handling of the daily activities of investigating and resolving alarms or incidents. Deft creates pre-defined playbooks that are used to rectify alarms and incidents in a way that minimizes disruption to each Client’s environment.

**Patch Management**
Managed Switch and Router Service takes care of all infrastructure system patching activities to help keep resources current and secure. When updates or patches are released from infrastructure vendors, Deft applies them in a timely and consistent manner to minimize the impact on Client business.

**Security Management**
Managed Switch and Router Service protects Client information assets and helps keep all Managed Switch and Router Service infrastructure secure. All systems are logically separated and only available to the appropriate Managed Switch and Router Service environment. All Deft Managed Switch and Router Service services have encryption at rest and in-flight enabled by default for all Clients.

**Continuity Management**
Deft can provide redundant services as an additional, option. In the event of a failure or outage that impacts the Client’s business, or at their request, Deft can bring the additional Managed Switch and Router infrastructure online. Deft also offers comprehensive Disaster Recovery as a Service capabilities which introduces formal SLA and automation to the restore / recover processes for environments dependent upon the Managed Switch and Router Service.

**Monitoring and Reporting**
All Deft Managed Switch and Router Service environments include comprehensive Health and Performance Monitoring.

**Access Management**
Managed Switch and Router Service enables clients to securely connect to the Service in the manner they require – be it API access, HTTPS, Cross Connects or Dedicated Physical Connectivity. Our team will make sure that the connection is maintained.
Roles, Responsibilities and Process

Successful Managed Services are the result of transparency and collaboration. Clearly defined processes and a detailed outline of roles and responsibilities are where this collaboration begins.

Our Managed Switch & Router Service is preceded by defined Consult and Plan, Design and Build processes. These critical steps establish the foundation for the execution of the Service and align these critical processes with your unique business needs.

Consult
We follow a proven, structured process of automated data collection and personal interviews with key business stakeholders, IT infrastructure, and application teams to successfully complete the Discovery process.

The outcome of these efforts includes identification of business drivers and the discovery / analysis of your existing environment including Business and IT Governance processes, Infrastructure configurations and Networking and Security policies.

Discovery sessions are conducted with your company’s subject matter experts (SMEs) and our Managed Services team. This collaboration helps us prioritize your goals and ensure that all critical success factors are met.

Plan, Design and Build
The data gathered and objectives defined in Consult inform the configuration and process requirements for your Service. Plan, Design and Build brings these to life.

During this phase we will deliver the official, comprehensive analysis of the current environment. This documentation includes, but is not limited to, Infrastructure Diagrams and network connectivity requirements – identifying how is accessed, used and managed today – and where risks are present.

We will also develop and deliver a Remediation Plan for the current environment or a Development Plan for a net-new environment to ensure industry and Deft best practices are in place to support your business today and tomorrow.

Once the recommended Remediation Plan / Development Plan has been vetted and approved, we will move on to complete the Remediation / Development Process using the documentation and decisions identified, and agreed upon, by both parties.

Run and Operate
Now that your environment is successfully configured and verified as ready for production, the official Managed Switch & Router Service can begin. This is where we begin delivery of proactive day-to-day management, administration, monitoring, and support for your environment.

Optimize and Evolve
The final component of our Managed Switch & Router Service for is the ongoing optimization and evolution of your environment. This phase has us focused on infrastructure performance and cost management. Monthly or quarterly reviews provide updates and opportunities for additional environment optimizations based upon changing business requirements and environment performance. Any opportunities identified are shared directly with your IT and leadership teams to inform strategy and decisions.
Initial Configuration & Additional Modifications

Initial Configuration
During the Service Delivery, the Deft Provisioning and Managed Services teams will review the configuration documents in the Technical Design Workbook and discuss any changes to scope. These changes, if any, will be documented in the Customer Workbook described above.

Many times, the Service will be integrated with additional Services provided by Deft. Some examples include Colocation, Managed Firewall, Managed Storage, Managed VMware Cloud and Managed Backup. All services and products necessary to complete the deployment will be completed either in tandem or in a phased approach during this post-implementation configuration period.

Additional Modifications
Using the baseline information in the Technical Design Workbook, the Deft Engineering team will configure the baseline parameters for initial operation. The variables include, but not necessarily limited to:

- **Port Configuration**
  - Descriptions to match hardware for inventory purposes
  - Setup as simple Access or more complex Trunked configuration
  - Logical setup to match network requirements

- **VLAN Configuration**
  - Includes switch local private VLANs
  - Includes Trunked (802.1Q) connections to other Customer-owned devices

- **IP Addressing**
  - Public addresses whether provided by Deft or the Customer
  - Private (RFC1918) addresses

- **IP Routing**
  - Includes simple connectivity to Deft network
  - Includes complex routing to Third Party Providers for both Public (BGP) and private (L3VPN)

- **Cable Management**
  - All physical cables will be deployed by Deft personnel
  - With prior approval, cabling may be deployed by the customer, however, Deft personnel will be required to enable ports.

Once the Managed Switch/Router Service has been deployed, any configuration changes will be performed by Deft. Copies of switch port and VLAN configurations will be available in the Customer Workbook or by submitting a service request. Customers do not have access to the devices, which are wholly administered by Deft.

Should any ongoing changes be necessary, such as new network/VLAN creation, port configurations, adds/moves/changes, or any other type of work, Customers can open a support case with Deft to request the work. Requests for non-standard changes will be reviewed by Deft and evaluated on a case-by-case basis.

For any of the other Managed Services associated with your Managed Switch/Router Service, please refer to the appropriate Service Description for further information regarding those services.
Customer Success and Service Operations

The foundation of every Deft Managed Switch and Router Service is collaboration. All customer success and service operations workflows have been designed to minimize response time, mitigate risk and optimize collaboration so knowledge transfer occurs when and where necessary.

We recognize your business, and your customers, operate 24x7x365. We have designed and operate our business to be here for you, whenever and however necessary to ensure your success.

Customer Success Team
Deft provides each customer with comprehensive resources to deliver ongoing service and support for your cloud environment. From sales, solution architecture and certified engineer support on our Service Desk, to customer success and executive management sponsorship, you will have experts with you every step of the way.

How to Contact Deft Support
Deft uses cases to identify incidents and provide support to our clients until the incident is resolved. Case identification and review is conducted using the Deft Customer Portal. Each Deft client is supplied with accounts that are permissioned to create, update and view their cases.

Case Creation – Customer Portal
Support cases submitted to Deft are submitted using the Deft Customer Portal. The portal is accessible at: https://portal.deft.com

To create a support case:

- Log into the Deft Customer Portal.
- Select “Create Case”.
- You receive an automatic confirmation of the successful case creation, including the case number.
- Deft Service Desk staff review the case for accuracy, confirm the Severity Level, and send acknowledgement of case receipt to you.
- Deft Service Desk agent & Cloud Services Engineer work to resolve the support case.
- Case updates are provided at set intervals as determined by the Severity Level.
- Case is Resolved & Marked for Closure.

Case Creation – Telephone
We recognize there may be times when a support case required the immediacy only a phone call can provide. Support cases may be created by calling the Deft Service Desk at +1 312-829-1111, Ext. 2. Telephone submitted support cases utilize a similar support operation, with a few modifications.

To create a support case:

- Call the Deft Service Desk at +1 312-829-1111, Ext. 2.
- Deft Service Desk Agent verifies caller identity, captures relevant information, creates the support case, and assigns a Severity Level.
- Deft Service Desk agent & Cloud Services Engineer work to resolve the support case.
- Case updates are provided at set intervals as determined by the Severity Level.
- Case is Resolved & Marked for Closure.
Case Escalation Paths
Deft provides several, formal options for support case escalation. Escalations occur to set a support case to a desired Severity Level, as outlined below.

Primary Escalation Path - This method is preferred as it is the most efficient method for raising the Severity Level of a case. To create a support case, you will:

- Log into the Deft Customer Portal.
- Navigate to the appropriate case.
- Click the “Escalate Case” link.
- Select the desired Severity Level and submit.

Alternate Case Escalation Path(s) - Additional Case Escalation paths are also available. However, it is important to note that Alternate Case Escalation Paths will not be as expedient as the Preferred Escalation Path.

Alternate Escalation – Case Response
You may submit a response to an existing case and simply request an escalation to the desired Severity Level. The Severity Level will be raised once a Service Desk Agent has reviewed and processed the request.

Alternate Escalation – Phone Support
- You may call the Deft Service Desk at +1 312-829-1111, Ext. 2.
- The Deft Service Desk Agent will verify the caller’s identity and the support case number. You verbally request escalation to the desired Severity Level.
- The Deft Service Desk Agent updates the case accordingly.
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)**

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

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.
Service Level Agreements
Deft provides multiple Availability SLAs for Managed Switch and Router MSP customers including:

- Configuration Management SLA
- Configuration Change Requests SLA
- Availability SLA (Standard Service)
- Availability SLA (High-Availability Service)
- Hardware Replacement (Chicago Market)
- Hardware Replacement (Worldwide, excl. Chicago)
- Ongoing Maintenance

The SLAs for the Managed Switch and Router Service will be dependent upon the configuration(s) and location(s) selected by Deft and you.

You can find current version of the Managed Switch and Router SLA on our website at https://www.deft.com.

Account Reviews
Deft offers quarterly and annual Account Reviews for all Managed Service Partnerships. These collaborative sessions aim to provide greater visibility into the technical, operational, financial and business aspects of your company and your Cloud. Account Reviews also provide you with a way to offer direct feedback, including areas of improvement, on the status of your Partnership with Deft.

An Account Review agenda includes:

- Introductions
- Technical, Operational, Business Updates
- Service & Performance Metrics/Dashboard Review Optimization Recommendations
- SLA Adherence & Support Ticket Review
- Access Control List (ACL) Review Q&A/Discussion

Upon completion of each account review you should be confident that we are flexing our services and approach to meet you where you are and have a plan to take you where want to go so that you can focus on what matters most for your customers and your business.
Responsibility Matrix

We are committed to solving your Managed Switch and Router challenges so you can focus on what matters most.

Each Deft Managed Services Partnership operates with the understanding that there are two parties involved in supporting your environment: your in-house experts and ours.

The Managed Switch and Router Service, including all Deft-operated hardware and software, is monitored by our Managed Services Team and Service Desk. Should any issues or anomalies be detected with the Service, a member of the Deft Managed Services Team or Service Desk team will take corrective action as planned and notify the customer.

From time to time, we will perform scheduled maintenance activities on the infrastructure supporting the service. Customers will be notified in advance for all scheduled maintenance. Emergency maintenance may be required and performed without advance notice. Should a service-impacting emergency maintenance be required, we will use commercially reasonable efforts to notify Customer upon execution of the maintenance.

The following responsibility matrix defines the roles and responsibilities for each phase:

<table>
<thead>
<tr>
<th>Consult Responsibilities</th>
<th>Managed Service</th>
<th>Deft</th>
<th>Customer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify Business Drivers</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Align Business Drivers with Project</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Current Infrastructure</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Current Applications</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Application and Infrastructure Dependency Mapping</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>
## Plan, Design and Build Responsibilities

<table>
<thead>
<tr>
<th>Plan and Design Managed Service</th>
<th>Deft</th>
<th>Customer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greenfield Architecture</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Total Cost of Ownership</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Migration Planning</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Compliance Requirements</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Hardware Selection Requirements</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Hardware Procurement</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Scale Requirements</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Build Managed Service</th>
<th>Deft</th>
<th>Customer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proof of Concept / Pilot Environment</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Environment Build-Out</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Environment Migration</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Environment / Appliance On-Site Sparing</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>
## Run and Operate Responsibilities

<table>
<thead>
<tr>
<th>Configuration Management Managed Service</th>
<th>Deft</th>
<th>Customer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure Patching and Updates</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Infrastructure Configuration Management Automation</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Infrastructure and Environment Audit Logging</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Credential Management and Resets</td>
<td>Y</td>
<td>N</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Monitoring and Alerting Managed Service</th>
<th>Deft</th>
<th>Customer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Performance</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Appliance Storage Performance</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Infrastructure Alert Response and Triage</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Environment Alert Response</td>
<td>Y</td>
<td>N</td>
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<thead>
<tr>
<th>Security Managed Service</th>
<th>Deft</th>
<th>Customer</th>
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</thead>
<tbody>
<tr>
<td>Network Configuration and Security Protection</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Compliance Support</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Support / Incident Portal</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Incident Response</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Request Response</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>
## Optimize and Evolve Responsibilities

<table>
<thead>
<tr>
<th>Change Management Managed Service</th>
<th>Deft</th>
<th>Customer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure Resources</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Infrastructure Configuration</td>
<td>Y</td>
<td>N</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Audit Trails Managed Service</th>
<th>Deft</th>
<th>Customer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure Logs</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Platform Compliance Initiatives</td>
<td>Y</td>
<td>N</td>
</tr>
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Additional Questions

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

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