

KNIGHT POINT'S NETWORK MANAGED SERVICES DELIVERING COMMUNICATIONS AS A SERVICE TO THE FEDERAL GOVERNMENT

Background: A Changing Environment

Current trends in government and industry are driving dramatic changes to how we design, deploy and support critical IT applications and business services.

IT paradigms are being rapidly redesigned by technologies such as cloud computing, consolidation, trusted internet connections, virtualization and secure mobile applications. These changes are moving quickly through organizations, bringing operational challenges to managers who must meet pressing technical requirements along with a financial environment that demands significant cost savings and a move from capital expenditures to more flexible operational expenses.

Knight Point Systems (KPS) is ahead of the challenge and is already supporting critical IT architectures and environments that are being delivered to users *as a service*.

Knight Point's Communications as a Service (Caas) Model

KPS' Communications as a Service model is designed to leverage and augment ITIL and business processes that we utilize on our most significant enterprise-wide contract at the Department of Homeland Security (DHS) and Defense Information Systems Agency (DISA). This solution provides the capability to achieve a dynamic ubiquitous network purchasing vehicle while providing the consistent and timely services that our customers require. KPS provides reliable and uninterrupted service, real-time visibility and accountability, and a robust service management capability.

KPS developed an enterprise Communications as a Service solution that focuses on rapid deployment models with maximum flexibility, innovative next-generation technology inclusive of Cloud Computing, and highly regimented processes to complement increased flexibility and elasticity. This allows us to deliver significant cost savings, increased security, and innovation, while mitigating the risks inherent to an "as a Service" delivery model.

FEATURES	BENEFITS
Flexibility Designed to give options to implement, secure, and maintain network solutions and technologies.	 Ability to choose from all leading network vendors to accommodate existing requirements and potential future requirements Open standards approach that does not rely on proprietary protocols or standards facilitate interoperability between components Utilization metering to provide the most accurate usage measurement Exit and asset transfer options for end of project/contract realities
Utility Demand-based service designed to rapidly scale network resources up or down.	 Ability to scale up or down using software automation integrated with best practice ITIL Change and Release Management processes Automation that mitigates manual time-consuming tasks Monitoring and provisioning capabilities that include Incident Response and Problem Identification integrated with service restoration dispatch capabilities
Transparency Designed to provide full visibility into your NW through Zeus, KPS' "as a	 Full asset tracking and management eliminates the "Black Box" associated with "as a Service" delivery models Real-time visibility into the network environment including utilization and lifecycle phase of all infrastructure, enabling smart buying decisions



FEATURES	BENEFITS
Service" automation	Ability to achieve "Green IT" status by understanding what you need and when you need
database tool.	it, through a custom portal
	• Consistent provisioning of network service offerings, using proven, operationalized ITIL
Service Delivery	best practices for change, configuration, release, and asset management processes
Excellence	■ Innovative centralized management capability ensures secure and efficient delivery of
Designed for end-to-end	services to customers
customer satisfaction from	 Established and dedicated Program Management Office (PMO) to directly support you in
initial service order to	the management, operation, and maintenance of all solutions provided
equipment deployment.	Proven experience supporting a communications utility contract, mitigating transition and
	ongoing operational risks for this utility contract

Exhibit 1. The KPS Communications as a Service Solution. Our solution ensures that you maintain the flexibility to adapt to change, the agility to scale rapidly, transparency into the network environment and our processes, and robust delivery capability that ensures high customer satisfaction and availability.

Interoperability: KPS' solution is based on standard, interoperable protocols and best practices for design and network configurations. Products are specifically chosen to address open standards and interoperability. Their adoption, coupled with high-end delivery, enables our customers to take advantage of new solutions including software defined networking technologies and next generation architectures.

Heterogeneous Solution: KPS' solution is heterogeneous and not reliant on any single OEM to provide infrastructure or pricing. This not only enables our customers to receive the right customized communications solution for each environment, but also ensures that our customers benefit from competitive pricing throughout the life of our contracts.

Zeus, the KPS "as a Service" Delivery Automation Tool: In 2013, KPS developed Zeus, a first-of-its-kind, proprietary "as a Service" automation tool that provides our customers with unparalleled visibility into their infrastructure and streamlines the call order / procurement process. Customers can view any aspect of the network infrastructure and its components through custom and ad hoc reports to gain a detailed understanding of the infrastructure in place, its utilization, the lifecycle status of each device, and the purchase price—all in real time.

The KPS Communications as a Service solution is designed to provide consistency and transparency, improve interoperability, and transform IT-centric infrastructures into mission-centric resources that minimize operational risks. Our Managed Services solution is based on the model that we established for the Defense Information Systems Agency (DISA), a leader and pioneer in this network service delivery model, with the Capacity Services Communications contract. This model leverages KPS' ISO 20000 certified processes and best practices to provide efficiency and standardization wherever possible and enables our customers to achieve the benefits that DISA has achieved. This model enables "The Technology You Need. When You Need It." Specific benefits include:

- Cost Efficiency and Predictability
- Reduction of Capital Expenditures
- Access to New Technology and Capabilities
- Increased Provisioning Speed
- Scalability
- Information Sharing Capacity
- Centralization
- Advanced Architecture Enablement



Current State

- Multiple Contracts
- Multiple Support Teams
- · Multiple Tools
- Different Processes
- · Different SLAs
- Varied customer satisfaction levels
- Different Architectures
- · Difficult to Refresh

Communications as a Service Model



Future State

- Stable and Secure NW Environment
- · Scalable NW Solution
- · Enhanced Application Support
- High Customer Satisfaction
- Consistent SOPs and service level expectation
- Transparent processes and SLAs
- · Rapid on site response
- ITIL Integration

Consistent Remote Site Delivery

- Consistent technology capabilities and architecture
- Deployment support with consistent delivery by leveraging the same teams across the enterprise
- Detailed knowledge of each location and ability to deliver all local support requirements

Centralized Monitoring and Management

- Minimal service impacts due to scheduled maintenance
- 100% continuance of operations and network system functionality
- Delivery of smart short-term and long-term solutions to problems
- Enterprise monitoring

Integrated IT Service Management

- Effective Task Order
 Management and reporting
- NW asset, lifecycle, capacity, and technology refresh management with Zeus
- Streamlined acquisition, scheduling, delivery and order management with automated toolset

Exhibit 2. Network Managed Services. The KPS Network Managed Services model was designed based on the successes and lessons learned gained from executing Communications as a Service for DISA, which includes centralized management and remote support across 40 locations within the United States and globally.

"as a Service" Delivery Tools

KPS is focused on Rapid Delivery through flexibility. We have proven the capability to discover, assess, realign, and innovate with elasticity using an "as a Service" model for our customers. Our delivery capability is grounded in a custom built "as a service" toolset to provide automation and transparency to our customers. KPS custom developed two unique "as a Service" tools that enable us to effectively deliver utility or capacity based contracts: **Zeus** and **COMS** (the Call Order Management System).



In 2008, KPS developed a tool to manage a customer's data migration including features to support application and infrastructure interdependency mapping and to support moving physical and logical assets. In 2011, what is now



known as **Zeus**, became an "as-a-Service" automation tool allowing full visibility into cloud infrastructure, capacity, utilization, logistics, and overall lifecycle management of its assets.

Zeus and **COMS** were developed to provide our customers with unparalleled visibility into their infrastructure and streamlines the call order / procurement process. These tools allow KPS to delivery utility based contracts and gives the government confidence that they are receiving what they are paying for and insight that enables decision making. This toolset provides inventory management and an end-to-end call order management system that is flexible and customizable based on DISA's evolving requirements. KPS is currently enhancing **Zeus** to include functionality for viewing any aspect of the network infrastructure and its components through custom and ad hoc reports to gain a detailed understanding of the infrastructure in place, its utilization, the lifecycle status of each device, and the purchase price – all in real time.

Zeus provides a centralized console for visibility into what technology is being used across sites and at what capacity thus providing the information required in order to make informed decisions. **Zeus** is a role and permission webbased application that allows authorized users to record and manage information on service-related equipment across customer sites and field office locations. **Zeus** is used to inventory customer assets and items, including tracking End of Life (EoL). Zeus design allows for features such as removing items, through filters and sorting features that have reached EoL from searches or reports that inform current SRE information. **Zeus** is accessible twenty four hours a day, every day of the year.

COMS is capable of providing notifications to specific user groups identifying action for every step of the call order process. This centralized system reduces unnecessary delays typically seen in email-based processes. The COMS tool automates repetitive tasks such as call order number assignment, amendment tracking, and customer code identification. These automation features decrease errors and number of man-hours required to process call orders. Through the click of a button, you are able to view infrastructure reports, initiate call orders, and check order status. The tool gives you unprecedented access to the data required to make informed decision. KPS leverages COMS for ordering, provisioning, monitoring, tracking, and billing best-in-class infrastructure equipment to support our clients. The workflow included within COMS allows you to see where in the approval process each call order is and also allows everyone to see delivery tracking in near real-time. It also allows you to quickly understand the current available capacity and capabilities and provides a streamlined process for adding capacity, new technologies, and infrastructure into the environment, and for tracking lifecycles of all equipment.

KPS is doing more with Zeus than ever before. We are now fully supportive of client requirements to blend legacy, premise-based applications and infrastructure with forward-looking, cloud-based applications. We approach these projects with the confidence of an experienced leader in "as a Service" mission planning.

A Case Study: Delivering Communications as a Service at DISA

The Challenge: Department of Defense (DoD) Defense Information Systems Agency (DISA) sought a strategy to reduce costs and enable a utility based model for all communications infrastructure across data centers and supporting locations around the globe – without a capital outlay. This included the procurement of infrastructure, maintenance, and services for over 3,000 critical communication devices from over 70 vendors. DISA's goals were to obtain reliable, responsive, and cost effective communication infrastructure services within DISA data centers and at other DISA-approved locations and to obtain a dynamically scalable communications capability utilizing an on-demand service approach for new equipment that can readily adjust to both increases and decreases in communications requirements and which is priced on a utility ("as used") basis.



The KPS Solution: KPS enabled an end-to-end "as a Service" delivery model for communications and network infrastructure within DISA's Core Data Centers and at key DISA customer sites. Since contract award in September 2011, KPS has been delivering all communications support infrastructure and services for all makes and models of communications equipment. This \$200M "as a Service" Cloud-based contract delivers capital equipment purchases and maintenance per port or per appliance price on a monthly basis. As KPS' solution architects work with DISA to complete technology transfer and refresh aging equipment, KPS delivers this service-based operational approach to the Contractor-Owned Government site model. Since award, the KPS execution of the DISA CSC contract provided core infrastructure refresh and provided efficient implementation of key customer initiatives.

For all communications applications, KPS acquires, installs, uninstalls, transports, powers, configures, and provides the necessary hardware (including cabinets/racks/cabling), hardware maintenance, communications operating software and services to support the communication infrastructure. Maintenance on communication items currently in operation is priced individually by unit. All other maintenance items procured through technical refresh or new purchase is priced based on the service of the port. KPS maintains day-to-day operational control of the communication environment and retains complete oversight responsibility. Operational control includes the installation of all software updates after the initial delivery. KPS provides 24x7x365 support, and established a single, dedicated, toll-free number that connects users to support. KPS developed a comprehensive physical inventory of the DISA communications infrastructure assets entering all data into Zeus. We leverage Zeus to manage existing and new communications infrastructure lifecycles, procurement, and to help manage refreshes and service calls. On the CSC contract, DISA personnel can view any aspect of the network infrastructure and its components through custom and ad hoc reports to gain a detailed understanding of the infrastructure in place, its utilization, the lifecycle status of each device, and the purchase price – all in real time.

Results: KPS has achieved 99% SLA success rate while covering over 70 different manufacturers at 48 worldwide locations. Through the use of Zeus, KPS decreased the workload and time involved in planning and managing data center service needs, providing DISA with unprecedented visibility into all its communications infrastructure as well as effective management of end of life equipment cycling. Our ISO 20000-based Management System coordinates improvements in all four components of IT services and subservices: people, process, technology, and partners. This has resulted in increased efficiency of operations. We also established a streamlined process, managed in Zeus to reduce procurement times by over 300%. DISA's benefits from KPS' successful approach and proven solutions on this contract in the following ways:

- Reduction of hardware deployment times from 6-12 months to under 45 days
- Significant cost-savings by procuring capacity "As Needed" instead of through capital buys
- Simplified and streamlined maintenance and troubleshooting by having 1 vendor to contact regardless of the OEM or HW
- Reduction of procurement times (under 5 days)

Why Knight Point Systems?

KPS has received numerous awards from our clients for both our expertise and thoughtful approach to professional service support. We work as an extension of our clients' staff, helping meet mission objectives with a "best practices" model that fully meets industry standard methodologies.

Clients who select KPS as their source for hardware, software and vendor-supplied maintenance will work with a partner who meets the highest vendor-certifications levels and has the tools and experience to deliver quality services every step of the way.