Task 1

Organizational Overview, Research, White Paper, Diction

C768 – Technical Communication

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A. Organization Description

A1. Products or Services Produced

Nimble English Language Solutions, commonly known as **Nimble**, is an Akron-based language school and translation liaison service. The company offers a suite of services including English language instruction, professional editing, lesson plan development, and multilingual translation support. These services are delivered digitally via Nimble's proprietary website and mobile application, enabling global reach.

While many language schools cater primarily to children using "edutainment" models, Nimble differentiates itself by focusing on adult learners, business clients, and professionals seeking to expand into English-speaking markets.

Nimble's core competitive advantage lies in its centralized operations, enabling superior quality control, curriculum consistency, and rapid service iteration. Unlike most competitors who rely on dispersed regional contractors, resulting in inconsistent instruction and fragmented service delivery, Nimble's model allows for centralized oversight, faster updates to course content, and more agile alignment with client needs and market trends.

A2. Organization Size and Number of Locations

Founded in 2016, Nimble currently employs approximately 600 staff at its headquarters in downtown Akron, Ohio. The campus consists of three primary facilities: an administrative office building, a large operational warehouse, and a smaller warehouse dedicated to IT infrastructure.

The administrative building houses key departments including Marketing, Customer Service, Human Resources, and Executive Leadership. Adjacent to the administrative building, a repurposed warehouse serves as the hub of Nimble's ESL Services Department. This building accommodates instructors, editors, translators, and content developers within a flexible layout of

offices, recording studios, and creative workspaces. The third facility, a smaller warehouse, supports the Information Technology Department, including on-premises servers and other critical hardware.

Most employees are engaged in ESL service delivery, but Nimble also supports robust Marketing and Customer Service teams to manage its international clientele. Notably, the Information Technology Department is currently expanding rapidly, reflecting a strategic shift away from third-party contractors and toward fully in-house technical solutions. As part of this evolution, Nimble has recently launched its own Security Operations Center (SOC) in response to the rising landscape of cybersecurity threats.

A3. Organization's Industry

Nimble operates within the highly competitive English as a Second Language (ESL) education industry, offering multi-tiered English language solutions to global clients. Its services include professionally developed courses, live instruction, translation, and editing. Unlike most competitors that rely on low-overhead, contractor-based models, Nimble's centralized structure and commitment to in-house talent ensure superior quality, consistency, and accountability. The company's mission is to eliminate language barriers for clients expanding into English-speaking markets.

Founded in 2016 by Chuntao Carston, Nimble reflects the founder's personal journey. Born in Chengdu, Mrs. Carston credits learning English as pivotal to her success in education, global business, and self-actualization. Inspired to share similar opportunities with others, she established Nimble in her husband Daniel Carston's hometown, Akron, Ohio. She invested significant personal capital into the launch, which remains privately owned today.

While the ESL market is saturated, few competitors match Nimble's service quality. Many startups in this space operate with minimal investment, rely on freelance instructors with

unverified credentials, and prioritize marketing over educational outcomes. As a result, these firms often deliver inconsistent service and lack the infrastructure for long-term growth.

In contrast, Nimble reinvests talent, infrastructure, and innovation. With a growing IT department and a strong emphasis on in-house development, the company is positioned for sustained expansion and technical advancement. Nimble's digital-first delivery model enables 24/7 operations via its proprietary website and mobile app, supporting a truly global clientele. This scalable, quality-driven approach ensures sustained industry leadership and long-term success.

B. Related Source Research

This white paper explores the adoption of Splunk Enterprise 9.0, a powerful platform for searching, analyzing, and visualizing machine data across an organization's digital infrastructure. Splunk ingests data from sources such as servers, databases, applications, networks, sensors, and virtual machines. This enables real-time monitoring, alerting, reporting, and advanced querying through its proprietary Search Processing Language (SPL).

B1. Summary and B2. Importance

Splunk Use Case: Domino's Success Story

This source comes from a blog post by Vardhan, Senior Research Analyst at Edureka.co (Vardhan, 2021, July 29). The article details how Domino's Pizza leveraged Splunk to analyze consumer behavior and build data-driven business strategies. While this may sound straightforward, the challenge lay in managing vast, complex, and unstructured data from a multitude of formats and sources. According to Vardhan, "Up until implementing Splunk, managing the company's application and platform data was a headache, with much of its log files in a giant mess" (Vardhan, 2021, July 29). Splunk enabled Domino's to aggregate and interpret this data, powering initiatives such as interactive maps, real-time feedback, KPI dashboards, payment process optimization, promotional support, and performance monitoring. These tools provided Domino's with clearer operational intelligence and improved strategic decision-making.

This case is highly relevant because it illustrates why data alone is not inherently valuable. It requires structure and actionable insight to drive results. Domino's had access to immense volumes of data but lacked the tools to harness it effectively until implementing

Splunk. Real-time visibility into key metrics enabled them to act quickly, remain agile, and gain competitive advantage. This use case demonstrates how Splunk transforms raw data into operational and business intelligence, a capability that could yield similar results for Nimble.

Recipes for Monitoring and Alerting

This source comes from a blog post by Naveen on Intellipaat.com (Naveen, 2022, January 22). The article highlights a wide range of real-time monitoring and alerting use cases made possible through Splunk. It walks through several common business problems, such as system failures, unusual traffic patterns, or service outages, and demonstrates how Splunk can detect these events as they occur. Using both conceptual explanations and implementation examples, the article showcases how organizations can configure alerts, trigger automated responses, and visualize anomalies through Splunk dashboards.

This source is highly relevant because real-time monitoring is essential for organizations like Nimble that operate around the clock and depend on uninterrupted service delivery. The scenarios presented align closely with challenges faced by any tech-enabled business, including potential system downtime, performance degradation, or emerging cybersecurity threats. Splunk's alerting capability would allow Nimble's IT team to respond quickly to operational issues, minimizing service disruption and improving customer satisfaction. Likewise, Nimble's Security Operations Center can leverage continuous monitoring and reporting to detect threats early and coordinate effective countermeasures.

Splunk Enterprise Overview

This source is a summary of Splunk Enterprise features provided on the official Splunk website (Splunk, n.d.). Splunk Enterprise can index machine data from diverse sources, enabling

users to search this data using the proprietary Search Processing Language (SPL). Searches may be conducted manually or saved to generate reports that populate dashboards for real-time monitoring. Alerts can be configured to notify users when specific conditions are met, triggering actions such as sending emails or executing scripts. Dashboards display the results of saved searches running continuously in the background, providing up-to-date system information.

This source is important and relevant because it offers a comprehensive overview of the features available in Splunk Enterprise version 9.0. This is the exact product Nimble intends to adopt to address its business needs.

Splunk Case Study: ING Bank Śląski S.A.

This source is a case study of ING Bank provided on Splunk's official website (Splunk, n.d.). It documents the challenges ING Bank faced prior to adopting Splunk Enterprise and the wide-ranging benefits that followed. ING leveraged Splunk to streamline IT operations, monitor application performance in real time, manage over 200 business applications, and gain deeper insights into customer behavior by analyzing users' digital journeys. According to the case study, "The IT department needed real-time insight into application performance in order to spot any potential issues to keep these applications running 24/7, with a minimum 99 percent uptime" (Splunk, n.d.). ING's implementation demonstrates how Splunk can unify business analytics, IT operations, and cybersecurity under one scalable platform.

This case is relevant because, while Nimble and ING operate in different industries, both rely heavily on their websites and mobile apps to deliver services and interact with customers. Nimble collects similar types of data and could apply Splunk in comparable ways to transform that data into operational insight, improve IT infrastructure visibility, and enhance its security

posture. This parallel highlights how Splunk can deliver measurable value across multiple functions at Nimble.

C. White Paper

Splunk Integration for Business Intelligence

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Introduction

Since its founding in 2016, Nimble has aimed to set a new standard in the ESL education industry. Unlike competitors who rely on contractors and recycled content, Nimble built a team of credentialed teachers, translators, and content creators to deliver custom, high-quality English language solutions. It also invested in developing in-house Marketing, Customer Service, and IT departments, eschewing third-party vendors to create scalable internal infrastructure.

As a result, Nimble occupies a unique position: it has no clear competitor to model its growth on. The company's next phase must be guided by deep self-awareness. Nimble must look inward to better understand its operations, clients, infrastructure, and opportunities. That self-awareness begins with data. Nimble already collects vast amounts of machine data across its digital platforms, yet much of it remains underutilized.

Splunk Enterprise is a platform designed to make machine data useful. It can search, analyze, and visualize logs and events from servers, websites, applications, devices, and networks. Splunk indexes incoming data, breaks it into events, and enables users to identify trends, calculate metrics, and respond to issues in real time. With features like automated alerts, real-time dashboards, and predictive insights, Splunk can help Nimble translate raw data into operational intelligence and strategic advantage.

Business Analytics Solutions

Domino's, while widely recognized as a leader in pizza delivery, is also a major e-commerce powerhouse. As an omni-channel business with a vast customer base and numerous parallel systems supporting sales and delivery, Domino's systems generated massive volumes of unstructured data. "Up until implementing Splunk, managing the company's application and platform data was a headache, with much of its log files in a giant mess" (Vardhan, 2021, July

29). To address this, Domino's adopted Splunk to centralize and index its disparate data streams, significantly improving operational intelligence. With Splunk, the company developed interactive maps, tracked promotional campaign performance, and built real-time KPI dashboards. These innovations supported faster, more informed decision-making.

While Nimble operates at a smaller scale, it can apply similar strategies to gain critical business insights. Web and server logs, for example, can reveal customer location via IP addresses, allowing regional analysis of customer engagement, conversion rates, and satisfaction. These capabilities could uncover actionable insights, such as underserved markets or regions with lower user experience quality. Similarly, regional marketing campaigns can be analyzed to identify which efforts yield the highest return on investment (ROI) and why. If a design choice or marketing message is undercutting regional performance, due to cultural misalignment or user friction, Splunk can surface these issues quickly, allowing for rapid iteration. Finally, real-time monitoring of user behavior on Nimble's website and mobile app can provide actionable insights to improve user experience, engagement, and retention.

IT Operations and Infrastructure Solutions

ING Bank Śląski S.A., a member of the ING Group, sought a solution to improve the reliability and visibility of its IT operations. "The IT department needed real-time insight into application performance in order to spot any potential issues to keep these applications running 24/7, with a minimum 99 percent uptime" (Splunk, n.d.). ING's IT team supports over 200 business applications, 20 of which are mission critical. Splunk Enterprise enabled them to monitor complex systems in real time, receive alerts for emerging issues, and quickly escalate them to the appropriate technical teams for resolution. This proactive approach significantly reduced downtime and improved operational continuity.

Although Nimble occupies a different industry, many of the same infrastructure challenges apply. Both organizations maintain global operations and rely heavily on uninterrupted digital services. Nimble can benefit from real-time monitoring and automated alerting to detect system degradation or failures before they impact users. For instance, Splunk could alert IT staff to abnormal CPU or memory usage on key servers, latency spikes in database response times, or failed API calls. These alerts could be integrated with a ticketing system to trigger predefined workflows, reducing manual oversight and accelerating response times. User-friendly dashboards provide real-time insight into infrastructure health, improving forecasting and capacity planning. Additionally, Splunk could help detect and adjust for unexpected surges in usage, such as during major marketing pushes or global onboarding periods, ensuring consistent performance for users across time zones.

Cybersecurity Solutions

Today, Nimble faces increased cybersecurity threats targeting its website, networks, intellectual property, customer personal information, and computing infrastructure. As a company with global reach and a large customer base, Nimble presents a significant attack surface. In 2021, Nimble was the target of a sophisticated cyberattack. The company's digital service infrastructure was compromised by malware that created a botnet—allowing a bot herder to commandeer computational resources for malicious purposes. Typically, botnets are used to launch Distributed Denial-of-Service (DDoS) attacks against external targets. In Nimble's case, however, the bot herder used the botnet to stealthily mine cryptocurrency, siphoning processing power across multiple systems.

This breach went undetected for nearly two months and was only uncovered following an anomalous spike in resource usage. The prolonged undetected activity led to service disruptions and raised the risk of liability, especially if Nimble's infrastructure had been weaponized to

launch attacks on third parties. This incident directly motivated Nimble to establish its own Security Operations Center (SOC) to improve detection and response capabilities.

Splunk can empower Nimble's SOC to prevent similar exploits by continuously monitoring system health and security posture. For example, alerts can notify administrators immediately if privileges are escalated unexpectedly—potentially indicating unauthorized access. Remote Desktop Protocol (RDP) session logs, often exploited by attackers to gain entry, can be monitored with alerts configured to flag suspicious activity. Furthermore, real-time dashboards tracking system performance can identify anomalies such as unusual CPU usage consistent with unauthorized mining or other malicious processes. These capabilities enable Nimble's SOC to detect, investigate, and respond to threats swiftly, minimizing downtime and reducing risk.

Conclusion

Nimble's ability to grow depends on how well it understands the systems and signals it already controls. Splunk Enterprise empowers Nimble to turn raw machine data into actionable intelligence across the organization.

In Business Analytics, Splunk enables the discovery of underserved regions, helps evaluate marketing performance across segments, and reveals new growth opportunities through behavioral insights. In IT Operations, real-time monitoring and alerting can reduce downtime, improve capacity planning, and accelerate incident response. In Cybersecurity, Splunk supports threat detection, policy enforcement, and anomaly identification, all essential to the success of Nimble's Security Operations Center.

With Splunk, Nimble won't just collect data. It will understand it, act on it, and lead with it.

D. Explanation of Diction

The intended audience for this white paper is the head of Nimble's IT department. Accordingly, the language and tone were chosen to reflect a professional, objective, and analytical voice. I avoided first-person pronouns ("I," "we") and second-person address ("you") to maintain a formal tone and emphasize organizational perspective over personal opinion. Referring to Nimble in the third person helped maintain clarity and a neutral point of view

Given the audience's role, I assumed familiarity with key business terms such as Operational Intelligence, Business Analytics, ROI, and KPIs. Where ambiguity was possible—as

with ROI, which could also mean “rate of interest”, I provided brief clarification. However, terms like KPI and ESL were left undefined, as they are common in daily operations at Nimble.

For IT-related terms, I balanced clarity with conciseness. While I assumed basic understanding of concepts such as dashboards, ticketing systems, and IP addresses, I included brief contextual explanations where they supported the argument or helped transition into applied examples. I also took care to explain how meaningful insight could be derived from IP data, even though the term itself required no definition.

Although the department head is likely to have a foundational knowledge of cybersecurity, I was more explicit when referencing terms like botnets, DDoS attacks, and botnet mining. This was a strategic choice: by clearly framing the 2021 breach in accessible terms, I established credibility and laid the groundwork for explaining how Splunk can prevent similar incidents in the future.

Finally, I deliberately excluded technical detail regarding Splunk’s internal architecture, Search Processing Language (SPL), or implementation code. These elements were beyond the scope of this paper, which focuses instead on high-level use cases in Business Analytics, IT Operations, and Cybersecurity. The goal was to articulate business value, not delve into implementation-level technical depth.

E. References

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