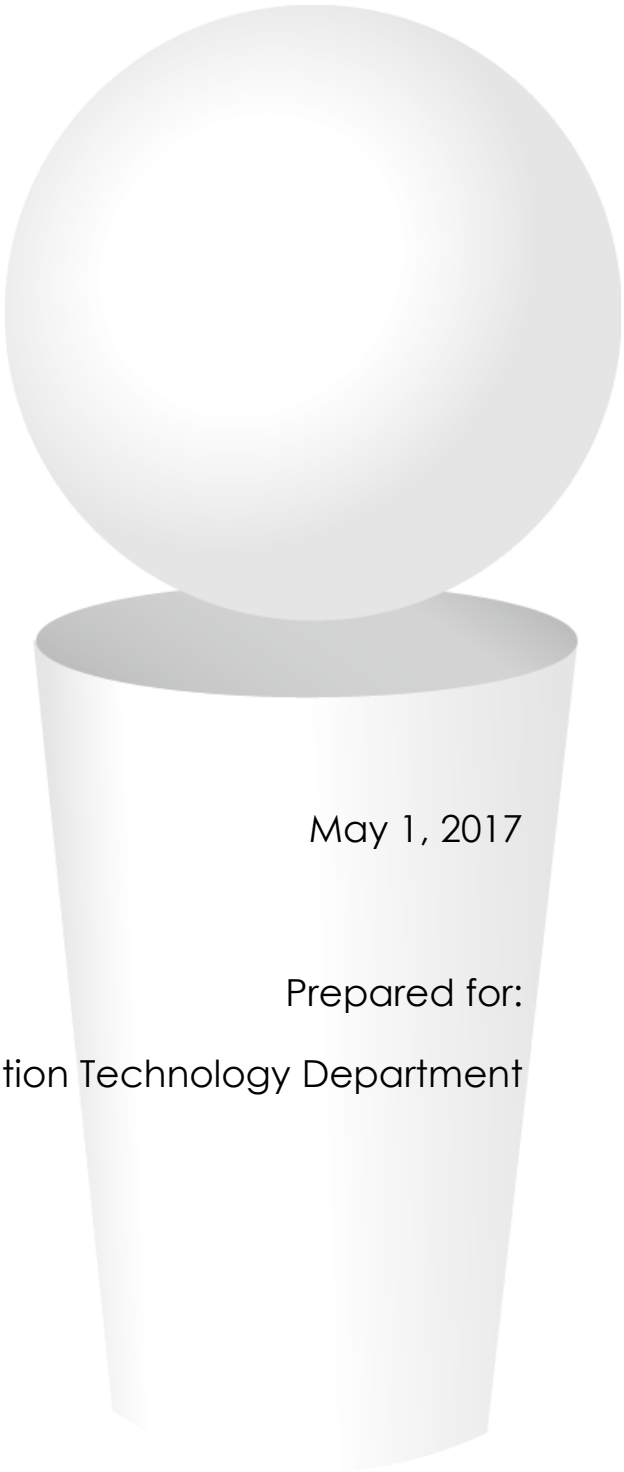
NETSYNC
NETWORK SOLUTIONS

Statement of Work

F5 LTM and GTM Integration



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Prepared for:

Hidalgo County Information Technology Department

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Netsync Project Manager	TBD		
Netsync Lead Engineer	TBD		

Project Summary

Hidalgo County Information Technology Department (or "Client"), headquartered in Edinburg, TX, requested that Netsync Network Solutions ("Netsync") submit a statement of work (SOW) to integrate an F5 Local Traffic Manager (LTM) solution with its current network solution and F5 Global Traffic Manager (GTM) to pair up its core and disaster recovery (DR) data centers. Netsync will provide professional services in discovery, design, implementation, test and acceptance, and documentation of two F5 BIG-IP i2800s appliances. F5 LTM will be used to load balance Client's current Odyssey web portal and Odyssey internal application servers.

Project Objectives

- Plan, design, and configure two physical F5 BIG-IP i2800 appliances to support Odyssey web portal and internal Odyssey application farms
- Plan, design, and configure two physical F5 BIG-IP i2800 GTM to support a data center failover solution
- Provide up to four hours of hands-on training
- Perform testing and validation of successful implementation

Project Scope and Phases

Discovery

1. Netsync will conduct a project kickoff meeting.
2. Netsync will identify all required information for implementation components, including but not limited to:
    a. Features and functionality.
    b. Integration with an existing network.
3. Netsync will perform inventory discovery to gather hardware information model and operating system (OS) validation.
4. Netsync will review project timeline, target dates, and milestones.

Planning

1. Netsync will meet with Client to review key design principles and integration with existing Client network.
2. Netsync will adhere to manufacturers' best practices for all logical designs and configurations.
3. Netsync will build and present low-level design (LLD) for F5 LTM integration with Odyssey application farms.
4. Netsync will build and preset LLD for F5 GTM integration with Client's core and DR data centers.
5. Netsync and Client will review the physical requirements of the project.
6. Netsync will build and present a test and acceptance plan for F5 LTM with Client's network.
7. Netsync will build and present a test and acceptance plan for F5 GTM for Client's data centers.
8. Netsync will receive Client sign-off on LLD.
9. Netsync will build and present a test and acceptance plan.
10. Netsync will receive Client sign-off on test and acceptance plans.
11. Netsync will build implementation plan, project timeline, target dates, and milestones for F5 LTM and GTM integration.

Implementation

Note: Implementation will begin only after Discovery and Planning are 100% complete.

During this phase, Netsync will physically install and configure all of the hardware/virtual appliance needed to complete the work included within the scope of this project.

1. Netsync will unpack, rack, and stack Client F5 i2800 BIG-IP appliances.
2. Netsync will provision initial platform setup such as:
    a. Resources provisioning for LTM and GTM.
    b. License installation, HTTPS/SSH access, Domain Name System (DNS)/Network Time Protocol (NTP), email, and default route.
    c. Upgrade to the latest F5 recommended code.
    d. Syslog/Simple Network Management Protocol (SNMP) and remote authentication (if applicable).

e. Change default credentials, configure administrative access, and port lockdown.
f. Network Address Translation (NAT) and Secure Network Address Translation (SNAT).
g. Failover configuration and testing:
    i. Network / hardwired failover.
    ii. State mirroring (if required).
    iii. Virtual LAN (VLAN) failsafe (if required).
    iv. Gateway failsafe (if required).
    v. Active-Active redundant configuration (if required).

3. Netsync will configure basic LTM:
    a. Create Virtual Servers (VIP) for Odyssey service nodes.
    b. Create Pools with Odyssey servers.
    c. Create and associate persistence profile.
    d. Create and associate service monitors.
    e. Simple iRules limited to consisting of no more than three if/else conditional statements (if applicable).
4. Netsync will configure basic GTM:
    a. Create the data center values.
    b. Create the DNS listeners.
    c. Create the Pools.
    d. Make sure the same version of the big3d is install on all the GTM devices.
    e. Create the Wide IPs.
    f. Check to make sure the proper communication ports for the GTM are allowed between the two data centers.
    g. Create the monitors.

Testing and Validation

1. Netsync will perform operational testing on all newly installed systems. This testing will include at least the following:
    a. Perform operational testing if traffic is passing out of the appropriate (internal, external, and admin) interfaces.
    b. Perform operational testing for failover.
    c. Perform and execute test plan.

Knowledge Transfer

1. Netsync will provide four hours of knowledge transfer for up to five Client attendees. Before the project start, Netsync will work with Client to define the specific location, the schedule, and any additional topics for the knowledge transfer session(s). The following topics will be covered:
    a. Features of all products and technologies deployed in the solution.
    b. Review of the as-built documentation to familiarize Client with the overall solution and key configuration details.
    c. Basic administration and common operational tasks.
    d. Reinstallation and/or reconfiguration in case of failure.
    e. Monitoring, testing, and maintaining the products deployed in the solution.
    f. Warranty and support procedures for all products deployed in the solution.
    g. Additional Client questions or topic requests.
2. If it is determined that the duration of knowledge transfer requested by Client will exceed the hours stated above, then Netsync can provide supplementary session(s) at an additional hourly rate.

Note: Knowledge transfer session(s) may not provide Client all of the necessary knowledge and skills to successfully manage, monitor, and maintain the solution. Netsync recommends formal training from the solution vendor(s) to address these needs.

Project Prerequisites

1. Client will fulfill cabling requirements, if applicable. (Netsync will coordinate.)
2. Client will provide Netsync all necessary hardware and information on current environment.
3. Client will provide Netsync local and remote administrative credentials (root access) to all equipment to be assessed during the process of this SOW.
4. Client will make available authorized personnel during the project with a working knowledge of existing network infrastructure for facility access, questions, and clarification of issues.
5. Client will provide Netsync access to all work locations, along with safety, access, security, and emergency protocols.
6. Client will obtain all necessary work permits.
7. Client will provide a work area for Netsync to use, as needed, during on-site activities to include internet and public phone access.
8. Client will provide parking passes and adequate parking for the Netsync project team.
9. Client will comply with all physical and environmental requirements per vendor specifications.

Project Management

Netsync approaches all projects using standard Project Management Institute (PMI) methodologies and processes. Depending on the size of the project and agreements between parties, a Project Manager (PM) is either assigned by Netsync or provided by Client.

Should a Netsync PM be assigned, a project kickoff conference call or meeting will be held with Client, the PM, the Account Manager (AM), and assigned resource(s) to ensure each party is in alignment with all aspects of this SOW. When applicable, the PM will also perform the following project management activities throughout the engagement to ensure Client expectations are consistently met and the project is delivered on time and within the established budget:

- Create the Project Plan.
- Ensure that accurate and timely status updates, action items, and scheduled tasks are received by the assigned resource(s) and uploaded as entries to the applicable Netsync SharePoint project portal. The PM will ensure status information clearly reaches Client to also include supplemental budget and milestone updates.
- Manage the Notes-Status-Issues Log portal web part and ensure timely updates.
- Lead recurring project status meetings with Client and the Netsync project team to communicate overall progress.
- Oversee a quality assurance review of documentation-based deliverables before providing to Client.

Project Updates

- Client will receive email alerts indicating an update has been made to the Notes-Status-Issues Log portal web part for the following communication entry types:
    - Meeting Notes
    - Engineering Status Update(s)
    - Issue tracking
- If Client wishes not to use the Netsync SharePoint project portal, then Client has the option to request direct email correspondence from the Netsync PM for all communication and updates.

Project Scope Change Requests

Netsync is fully committed to completing this project on time and within the established budget. All scope changes and out-of-scope (OOS) requests must be clearly communicated to the AM or PM before those changes or requests are acted on or performed by the assigned resource(s). The following outlines the scope change or OOS request procedure:

1. Client will notify the AM or PM regarding the requested change, add, or move.
2. The PM will submit a Change Request (CR).
3. The assigned Netsync Lead Engineer will verify the technical accuracy of the CR.
4. The PM will submit the CR to Client for subsequent approval and sign-off.
5. Client will return a signed copy of the CR to either the AM or PM.

All other terms within the original SOW, in addition to the signed CR, will remain intact.

Project Documentation

Netsync will provide Client the following documentation:

Included (Yes/No)	Document Type	Owner	Description	Frequency
Project Management Documentation				
Yes	Microsoft Project Plan	PM and Senior Lead Engineer	Task list and timeline of project work activities and scoped deliverables; may or may not require a formal Gantt chart	Once
Yes	Status Entry	PM and Senior Lead Engineer	Summary of technical accomplished, outstanding, and planned activities	Log entry, as needed
Yes	Issues Log Entry	PM and Senior Lead Engineer	List of tracking issues, action items, reminders, or questions	Log entry, as needed
Yes	Meeting Notes Entry	PM	Recap directly following a meeting outlining status, issues, and events discussed	Log entry, as needed
Closeout Documentation				
Yes	As-Built	Engineer	Post-implementation technical documentation of new configuration(s) and applicable support information	Once
Yes	Network	Engineer	Visio diagram(s) illustrating current/post-implementation design	Once

Project Risks and Assumptions

1. Client will participate in all design and planning sessions and be prepared to sign off on all milestones.
2. Client will provide Netsync with full access to the relevant functional, technical, and business resources with adequate skills and knowledge to support the performance of services.
3. Multiple outages may occur due to the nature of this project; however, they will all occur at scheduled and approved times.
4. Client delays to provide Netsync the necessary data to accomplish each task may result in timeline changes.
5. Netsync is not responsible for project delays caused by other vendors and/or manufacturing issues that may impede progress and/or closure of Netsync SOW deliverables.
6. If Client requires a copy of Netsync's standard Certificate of Insurance (COI) with Client-added endorsements, then it should allow up to 10 business days for delivery.
7. Anything not specifically stated in this document is outside the scope of this SOW.
8. Client will complete F5 pre-configuration worksheet.

Service Level Agreement

Hours of Operation

- Standard hours of operation are **8:00 AM to 5:00 PM Central Time Monday through Friday**. Netsync understands that due to the nature of the industry and work performed, after-hours and weekend availability are often required. In the event Netsync resources are required to perform work outside of the standard hours of operation, agreed-upon work windows will be discussed and subsequently documented via email. A Client project stakeholder or technical contact must be either on location or on call during the agreed-upon after-hours and/or weekend work window(s).

Agreed By

By signature below, Client and Netsync acknowledge and agree to this statement of work (SOW).

Client Contact Signature	Netsync Contact Signature
Printed Name	Printed Name
Title	Title
Hidalgo County Information Technology Department	Netsync Network Solutions
Company Name	Company Name
Date	Date

About Netsync Network Solutions

Netsync Network Solutions is a HUB-certified, minority-owned, value-added reseller (VAR), specializing in collaboration and unified communications, data center and cloud, network infrastructure, wireless and mobility, physical and network security, end-user computing and VDI, optical/WAN, managed services, and staffing solutions. Based in Houston, with sales and engineering assets in Austin, Dallas, El Paso, McAllen, and San Antonio, Texas, Netsync uses a true business consultative approach to determine clients' requirements and architects innovative and synergistic IT solutions to meet clients' needs. Holding the most prestigious industry certifications, our highly skilled and seasoned engineering team is available 24 hours a day, 7 days a week.

Netsync's primary objective is to protect clients' current investments, while helping them achieve expected growth. This approach has earned Netsync various customer service excellence awards and recognition as a progressive partner that introduces the newest, best-of-breed products and solutions to clients.

As a Cisco Gold and Master Collaboration Partner, an HP and Intel Platinum Partner, and holding certifications and specializations from many of the industry's top best-of-breed manufacturers, Netsync has built its reputation serving the public sector/SLED market, most notably K–12. In recent years, Netsync's growing enterprise division has diversified the company's client base by tackling large-scale and complex projects in industry verticals, such as energy, healthcare, retail, and finance.

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