

BroadAxis-Smart IMS Technical Proposal

IT Managed Services



American
Petroleum
Institute



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Platinum
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1. SECTION -1 GENERAL INFORMATION

a) COMPANY INFORMATION

Smart IMS and **Broadaxis** are pleased to offer the response to the RFP “RFP-21 A” for American Petroleum Institute referred to as API.

Smart IMS delivers IT solutions and services that create a sustainable competitive advantage for its clients across the world. The company was founded by business and technology experts with extensive backgrounds in designing, implementing, and managing large and complex IT projects for Fortune 500 companies.

BroadAxis is in a multi-year services term for Cloud Infrastructure not limited to Office 365, Azure Engineering, and other support in addition to supplemental services. Further BroadAxis, currently provides Tier 1-Help Desk VIP services in regular hours at the Houston Office.

In response to the subject RFP, BroadAxis, Inc will be extending VIP onsite Helpdesk services in the central office, in Washington DC and collaborating with “**Smart IMS**”, BroadAxis, Inc trusted partner to cover all aspects of the RFP to minimize multi-vendor vendor management and to minimize cost and efforts for API executives and team members.

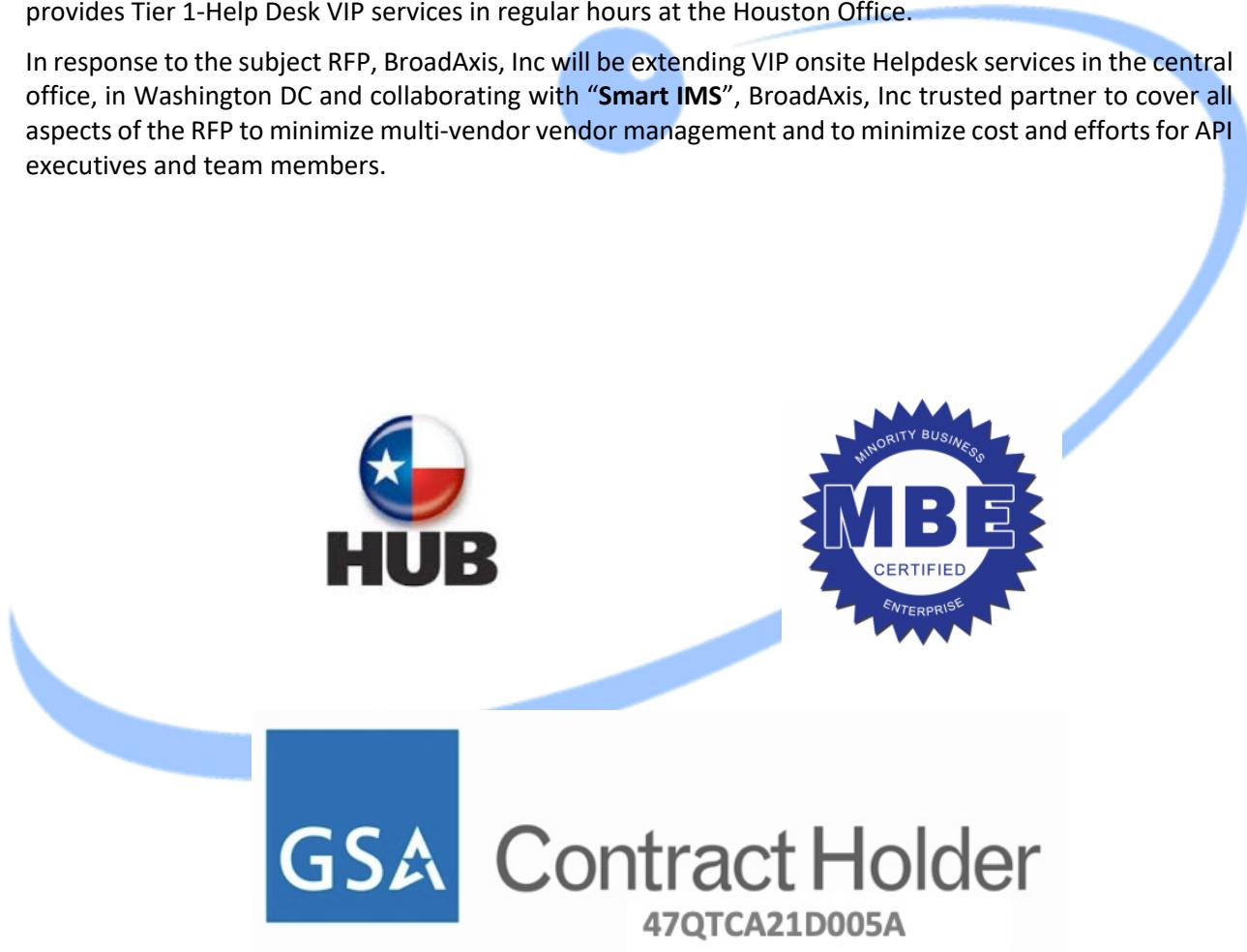


Figure 1: BroadAxis Certifications

i. COMPANY BACKGROUND

Smart IMS Fast Facts:

- A Certified partner to industry leaders including companies such as **Cisco, Microsoft, HPE, Oracle, and AT&T**.
- A long-standing successful relationship with non-profit organizations such as **International Rescue Committee (IRC), Human Rights Watch (HRW)** for providing IT Managed Services
- Prime vendor for the State of New Jersey, the **City of Philadelphia**, New York City, the State of **Delaware**, the State of **Wisconsin** (in partnership with AT&T) and the Commonwealth of PA (in partnership with AT&T), State of **Louisiana**, State of Kansas, State of **Georgia**, and the State of **Texas**
- A certified partner for Microsoft (Certified Gold Partner), **Amazon (AWS)** Managed Services Partner, **VMware Partner**, ConnectWise, and Cisco.
- Our consultants are certified by Industry bodies in their respective technologies, such as - PMP, and Microsoft Azure Cloud Certifications, etc
- Smart IMS has a 24x7 GEO Redundant NOC & Technology Engineering & Solution Center, located in Plainsboro, NJ



Figure 2: Smart IMS Service Offerings and Capabilities

Smart IMS is a technology services company founded in 1994 headquartered in Plainsboro, NJ. Smart IMS employs more than 600 professionals worldwide, with locations in NJ, NY, and KY in the United States, and with an office located in Hyderabad-India as well as a global team presence in London, Dubai, Singapore, and Malaysia. Smart IMS has Off-site and offshore application development, and infrastructure support centers based in Plainsboro, NJ, and Hyderabad, India. With our Geo-redundant GLOBAL NOCs, Infrastructure Management, App Development & support practices, Smart IMS is uniquely positioned to support API. Smart IMS combines its expertise from developing managed services platforms to offer unique network monitoring & management products, services, tools, and professional services.

Smart IMS is led by our Management Team with strategic input from our Board of Advisors, and efficient operations support from the Administrative, Finance, and Human Resources Teams. Our client-centric services organization is comprised of our Client Services, Business Development, and Service Delivery teams, which work collaboratively to provide and successfully execute the services and solutions which make up our core technology offerings. The Organization Chart below demonstrates a high-level view of how Smart IMS is organized. There is no larger business entity shown because Smart IMS Inc. is the parent company and primary business entity.

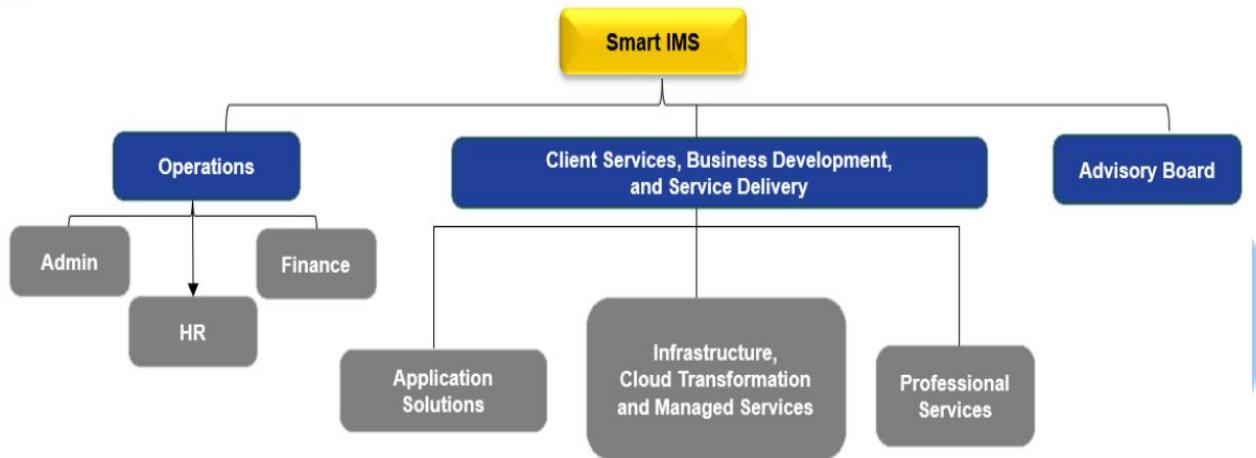


Figure 3: Smart IMS Organizational Chart

ii. REVENUE FROM IT MANAGED SERVICES FOR EACH OF THE PREVIOUS 3 YEARS

Year	Revenue From IT Managed Services
2020-2021	14M
2019-2020	11.5M
2018-2019	8M

iii. NUMBER OF CUSTOMERS (CLIENTS) SUPPORTED WITH MSP SERVICES

Smart IMS has been a leading service provider for the US Federal and State Government also apart from the Enterprise customers for the last more than 20 years. Smart IMS has built a comprehensive library of, tools, processes, skills, and reusable components to jump-start and onboard the customer quickly. Our capability has helped us to onboard more than 40 clients under managed service offerings in the area of infrastructure, application, and user management.

iv. STAFF SIZE:

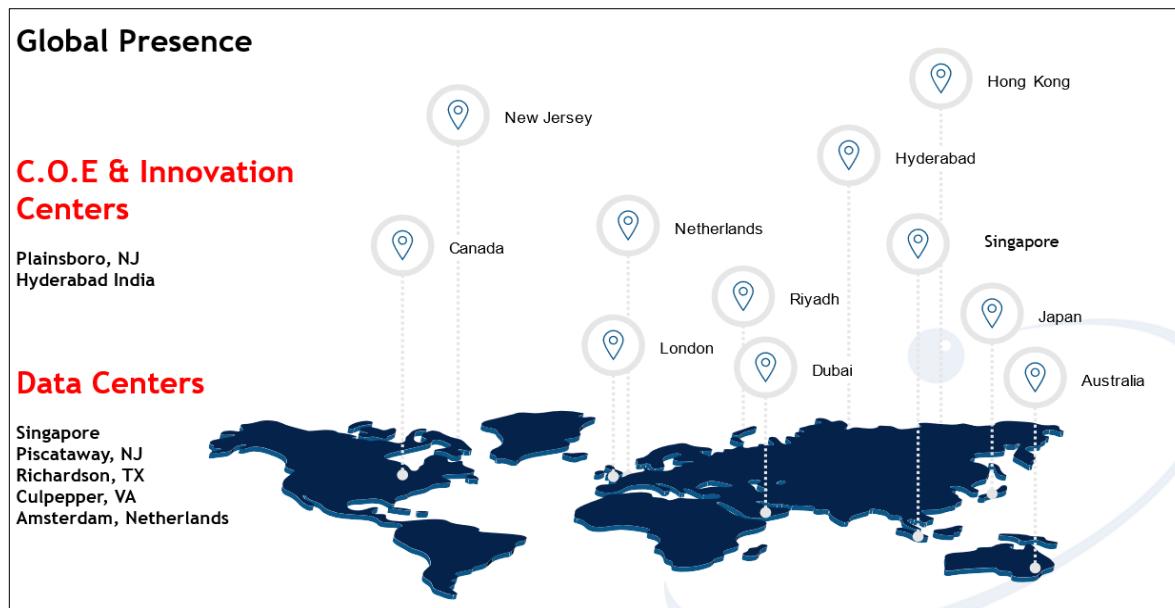
Smart IMS is employing more than 650 employees worldwide working for global customers in different projects.

v. 3RD PARTY USE – EXPLAIN MODEL IF USE OF CONTRACTORS AND/ OR 3RD PARTY SERVICES IS PART OF THE PROPOSED SERVICE OFFERING

Please refer to point a) Company Information

vi. EXPLAIN ANY OFFSHORE STRATEGY THAT IS PART OF THE PROPOSED OFFERING

Smart IMS is working with experts and consultants to provide cutting-edge technology services at reasonable and competitive prices. To fulfill the requirement of API and manage the cost, Smart IMS proposes to use its global team primarily supporting from its Hyderabad location in India. However, the onsite team will work from the API location in Washington DC for Tier 1 support and global coordination. Other than this primary support team, a secondary program manager will drive the project from the US who will work from the New Jersey location of Smart IMS. The proposed team structure to drive the project has been described elsewhere in this document.



vii. BUSINESS PLAN, INCLUDING GROWTH OR EXPANSION PLANS WITHIN THE NEXT 1-5 YEARS.

Smart IMS Mission: Helping our clients in creating their future. Smart IMS solves our clients' toughest challenges by providing unmatched services in strategy, consulting, digital, technology, and operations. We partner with Fortune Global 500, driving innovation to improve the way the world works and lives.

Our Vision: To become one of the world's leading companies, bringing innovations to improve the way the world works and lives. Our vision and strategy, developed in collaboration with leadership and partners from around the world, focuses on delivering excellence in all of the services to our clients.

Our Philosophy: We operates by these guiding principles:

- Be the best in what we do
- Always align IT with Business
- Combine our domain knowledge, technical know-how, innovation, and process expertise to deliver first-class systems and service to our clients

Spirit of Smart IMS: The Spirit of Smart IMS is reflected in its core values. Smart IMS firmly believes in empowering the employees to unleash their potential and scale greater heights in delivering NexGen solutions and services to its Fortune 1000 clients. We always aim for excellence and challenge stereotypes.

We believe that every individual has diverse capabilities and unique qualities; we strive to identify individuals with those qualities and empower and encourage them to grow in that space.

- **Integrity**

Smart IMS believes that integrity is the foundation of any individual or corporation and it is an integral part of its organization's values. Smart IMS demonstrates its commitment to integrity by encouraging delivery, sales, and account teams, valuing their honesty and personal ethics in evaluating their overall performance.

- **Excellence**

We strive for excellence in everything we do. We challenge ourselves to execute flawlessly and to consistently deliver the highest quality of service to our clients. We nurture talent and innovation to promote personal and professional development. We deliver what we promise – and add values that go beyond what is expected. We achieve excellence through innovation, learning, and agility.

- **Innovation**

Innovation helps us stay ahead of the competition. We believe that innovation is not only restricted to technology, but also covers every aspect of the business – product development, solution development, service delivery, sales, marketing, account management, and human resources.

Business Objective:

- Provide custom solutions with outstanding customer service– which enhances its customer's efficiency and secures Smart IMS long relationships via contracts and recurring projects.
- Focus on delivering contracts. Smart IMS strives to foster and maintain positive relationships with every client (both internal and external), by providing cutting-edge technology services at reasonable and competitive prices.
- Smart IMS' Tech 3 vision is driving its growth towards doubling its capability in 2021 by upgrading and rebranding its offering through AI/ML, IoT and digital solution, sales, and marketing transformation, and most importantly infusing a startup mindset in the organization.

b) CLIENT REFERENCES

Smart IMS takes pride in providing state-of-the-art services to Small and Medium enterprises. Our teams are trained with the new management platforms, tools and providing onsite and remote design and engineering support services. Smart IMS has been supporting clients for the past 20+ years and is fully equipped to support the API needs at optimal costs. Our industry and technical experience working with Microsoft, Cisco, HP, Cloud Migrations, setting up virtual infrastructures, combined with long-standing customer relations, will be a perfect match for API needs.

HRW Human Rights Watch

Client Name	HRW Human Rights Watch- A US-based global NGO
Name of the Contact Person	Walid Ayoub
Title	Global Chief Information Officer
Phone	(212)216 -1241
Email	ayoubw@hrw.org

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Scope of Services Provided	Smart IMS has been serving Human Rights Watch for more than 10 years to achieve seamless systems, applications, database support for its employees/activists located across the globe with the onsite and offshore teams. Global End to End Support. (On-Site, Off-Site, and Global) 24x7 Helpdesk, Office 365 support, Server Management, Network Design, Engineering, and Management Support, Systems Support, Security Support, and Advisory services
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IMM ONLINE

Client Name	IMM Online – A US-based leading e-signature company
Name of the Contact Person	Nish Shah
Title	Chief Technology Officer
Phone	Direct: 800-836-4750x132 Mobile: +1 7327130790
Email	nish.shah@immonline.com
Scope of Services Provided	Global End to End Support. (On-Site, Off-Site and Global) 24x7 Universal Helpdesk, Network Management, Server Management, Network Design, Engineering, and Management Support, Systems Support, Hosted UC and Network Services and Support

INTERNATIONAL RESCUE COMMITTEE (IRC)

Client Name	International Rescue Committee (IRC) A US-based, one of the largest Global NGOs
Name of the Contact Person	Neal Moffitt
Title	Senior Director, Global Infrastructure
Phone	212 551 3052
Email:	Neal.Moffitt@rescue.org
Scope of Services Provided	<p>Smart IMS is providing the following managed services to IRC:</p> <ul style="list-style-type: none"> • Proactive environment monitoring of virtualized and standalone systems and corrective response and support actions to alerts, following established SOP and change control process covering following but not limited to <ul style="list-style-type: none"> • Server performance (CPU, RAM, disk space) • Capacity monitoring • Storage monitoring • System health • Reactive 24x7 support for Windows and Unix/Linux servers. • Management of virtual backup and availability environment [Veeam] covering the following <ul style="list-style-type: none"> • Backup of all virtual machines as per agreed schedule • Cluster/Host management and capacity monitoring, planning, and reporting • Backup storage resource monitoring and management

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- Resolution of backup failures
- Enforcement of retention standards and required data purges
- For all defined services, a full deployment plan and documentation of covered services are required together with the list of technical capability and experience of resources dedicated to implementing required services.
- Email account creations, Distribution List creations, addition, and deletion of Users to the DL as required.
- Email forwarding, additional Mailbox setup, Delegation, Out of Office issues troubleshooting.
- Application issues: Outlook and Office 365 installation issues, login, and password issues

FORMER MSP CUSTOMER REFERENCE

EVERYDAY HEALTH

Client Name	Everyday Health – A US-based wellness and lifestyle Company
Name of the Contact Person	Premal Parikh
Title	Chief Technology Officer (CTO)
Phone	609-937-0835
Email:	premal.parikh@eshacorpit.com
Scope of Services Provided	<p>Smart IMS has provided the following help desk services to Everyday Health:</p> <ul style="list-style-type: none"> • Active Directory Administration, User Account creations, providing folder permissions, password reset, Groups assigning. • Operating System issues like OS (Operating System) boot issues, Internet/network, and performance issues. • Troubleshooting and identifying the hardware requirements like a memory for boosting the performance • Installing and troubleshooting applications like Skype. Microsoft Communicator issues. • Activation/De-activation of International Calling services to the User Mobiles • Installing and troubleshooting Office 365 mobile application. • Application issues-> Outlook and Office 365 installation issues, login, and password issues • Regular health checkups and system maintenance carried, regular email backup's and providing PST access to the users. • VPN installation and connectivity issues for the remote users. • Raised the requests for the hardware when needed and sent them to the procurement team. • When employee exits-- Outlook and important folder data is backed up and stored in the file server. • Accounts de-activated and password for the assets reset and made available for the new hires.

- Recommended software and applications installed upon approvals from the concerned managers.
- Virus scan performed at regular intervals and updates pushed at the scheduled intervals.
- Windows updates and Office updates pushed at scheduled intervals.

c) LIST OF CERTIFICATIONS HELD BY SMART IMS

Smart IMS is CMMI L-3, ISO 9001:2015, and ISO 27000:2013 certified small business with specialized expertise providing performance-based IT services.

d) LIST OF COMPANIES / PRODUCTS FOR WHICH SMART IMS IS AN AUTHORISED RESELLER OR CHANNEL PARTNER

Smart IMS has built a partnership with various leading services and product companies keeping our capability portfolio in mind. We have built a very strong relationship with Microsoft, Oracle, Amazon, Cisco, etc. Our partnership with Guidewire, Salesforce Cloud is in an advanced stage of approval which will strengthen our insurance practice in providing digital solutions to global P&C insurers.



Figure 4: Smart IMS Technology Partners

e) SMART IMS NEW MSP CUSTOMER ONBOARDING PROCESS

SIMS customer onboarding processes are defined to ensure that the Knowledge Transition has been properly carried out. The approach and methodology will be used with the joint review and delivery from the API Project Team and SIMS Project Team.

Knowledge transition will be carried out with four tracks, as we've explained below:

- **Infrastructure Track:** The transition includes transferring knowledge about: Application and Database server management, the list of patches applied, details about the environment, the capacity register, the configuration register, and such other documents as may be required to provide the system's administration and management, during the support period. SIMS's engineer will be responsible for acquiring the knowledge from the current support team and we will request that the API nominate an engineer who would carry a primary responsibility of providing all the information to SIMS's engineer.

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- **Architecture Track:** The Engineering team leads will carry out this activity. The knowledge of the hardware, servers, and other relevant IT stacks and processes, will be transferred to the SIMS Project team. We will request that the API have a Transition Manager, who will be responsible for ensuring that all necessary information is passed on to the SIMS Project team. The knowledge transition can be carried out as below:
 - Workshop to explain the processes and solutions
 - Sharing all relevant project documents (including IT landscape, sizing, capacity, architecture, and infrastructure design documents, test scripts, training materials, presentations, etc.)
 - Sample demonstration of the core processes and solutions d. Sessions for clarifications
 - Highlighting the key issues handled and solutions w/ workaround provided for the support
 - List of Service Requests created by the users and statistical reports
 - Details of Knowledge Management Articles
 - Training on the tools and templates used by the API, viz ticket monitoring tool.
 - Any other information, as may be necessary to transfer the support processes
- **Process Track:** This track includes transitioning the core operational and support processes using ITIL and other methodologies that are used in the current support environment. Training on the tools and the report format would be given to the support executives. This process transition is headed by a SIMS consultant and Subject Matter Expert who is responsible for adapting the processes and transitioning the same into Smart IMS's support Model. This transition also includes the templates of our deliverables and the knowledge management processes.
- **Governance Track:** SIMS's Project Manager will discuss the relevant Project Governance Model, which includes the following:
 - Organization Structure
 - Reporting Structure (including Horizontal and Vertical Communication)
 - Formation of Committees, roles, and responsibilities for each of the committees
 - Service Level Agreements, Deviations, and reporting on the SLAs
 - Quality Management, Risk Management, and Change Management related definitions
 - Roles and Responsibilities of the individual members in the Operating Group

These transition tracks will be carried out in parallel, to ensure that the Knowledge Transfer is completed within the planned timeline. Smart IMS will commit to the timeline for the Knowledge Transfer phase. However, we ask that the API work out the risk mitigation strategy to avoid any possible overrun during this stage, considering the criticality of this phase for a successful support engagement.

A proposed customer onboarding and service transition approach are given in the below diagram:

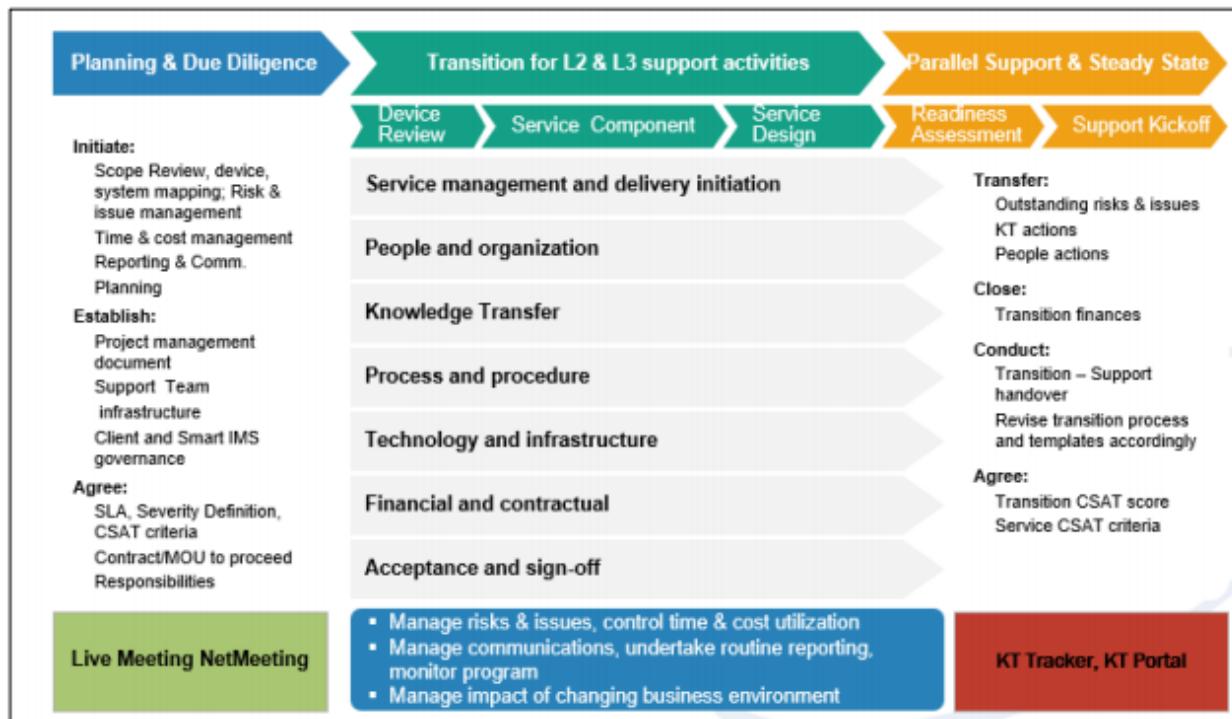


Figure 5: Smart IMS New Customer Onboarding and Service Transition Approach

f) SMART IMS ONGOING CUSTOMER ACCOUNT MANAGEMENT PROCESS AND TEAM

I. WHAT RESOURCES WOULD BE DEDICATED TO API?

To fulfill the requirement of API and manage the cost, Smart IMS proposes to use its global team primarily supporting from its Hyderabad location in India. However, the onsite team will work from the API location in Washington DC for Tier 1 support and global coordination. Other than this primary support team, a secondary program manager will drive the project from the US who will work from the New Jersey location of Smart IMS. The proposed team structure to drive the project has been described elsewhere in this document.

II. HOW WILL PERIODIC REVIEWS WITH API TO REVIEW STRATEGIC PLAN, SLA PERFORMANCE, CURRENT STATE OF API'S IT INVESTMENT BE HANDLED?

A well-defined governance model is a key to the success of an engagement, especially where the timely support and resolution of the issues is the key. At Smart IMS, our focus has always been on building a strong communication mechanism that involves the entire team including developers as well as the CEO of the organization. Our governance model for API is designed keeping the facts in mind that there might come some challenges to manage the risks, issues, and changes efficiently and thus we propose a three-tier governance model for this engagement governance, escalation, and strategic management.

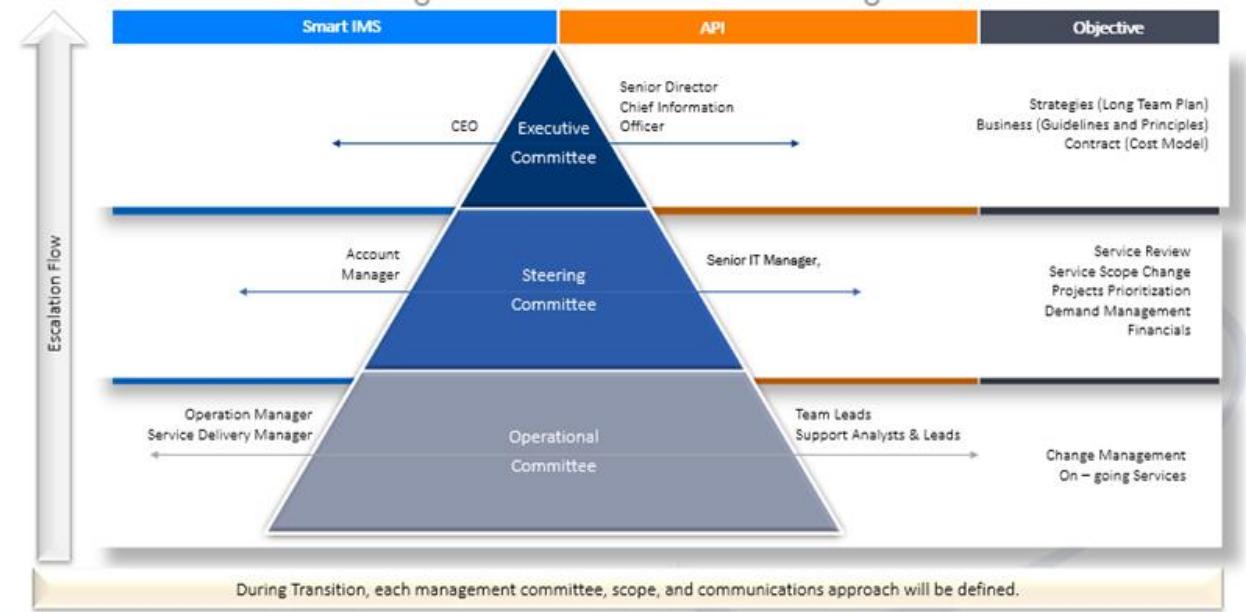
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Figure 6: Smart IMS Three-Tier Governance Model

Escalations are handled through a Smart IMS designed escalation management process and this process has been distinct from the normal incident management process. Our escalation management process is primarily used in situations where there is a high level of business impact.

Smart IMS ensures that critical escalations are supported around the clock and periodic updates are provided to all the stakeholders. Depending on the severity & gravity of the situation, our executive leadership is also involved in the process to provide a speedy resolution.

Our escalation procedures are customized to every customer to ensure that all issues in the event of non-resolution can be suitably escalated to the appropriate authorities through the right channels. Smart IMS will create an escalation handling process, set timelines and prioritization guidelines during the transition phase.

Quality Assurance

Our Quality control process is based on principles defined below.

- Engagement Management Principles Our PMO will track and manage project timelines, milestones, deliverables, and budgets. Weekly & Biweekly status meetings are conducted with the customer point of contact to appraise the status of the deliverables.
- Quality Control Quality control is integral to our project management methodology and is performed by our Quality Control team. All the activities and deliverables will be closely followed and reviewed to confirm that they comply with agreed SLAs & customer expectations.
- Issue Management Smart IMS believes in proactively identifying issues & challenges and resolve them before they impact the project. We use an internal RAIDE log (Risk, Assumptions, Issues, and Challenges & Exclusions) to track the issues and develop mitigation plans.

g) SMART IMS PROPOSED SERVICE MANAGEMENT STRUCTURE

I. PROPOSED TECHNICAL RESOURCES AND THEIR TECHNICAL LEVEL

Role	Responsibilities
Account Manager	Overall responsibility of the account, which includes, End-to-End Support activities, Billing Management, Effective Communication, Reporting, etc.
Service Manager	Leading project planning sessions, coordinating staff and internal resources, managing project progress and adapt work as required, ensuring projects meet deadlines, managing relationships with clients and stakeholders, Designing, and signing off on the contract. Managing SLA and delivery of the services.
Operation Manager	Leading the shifts of monitoring and management team by controlling the tickets distribution and team availability. The operation manager would be a skilled SME who will monitor the timely resolution of P1 and P2 tickets.
Tier-3 Engineer	Subject Matter Expert, Level- 3 engineers' team, Remote support, work on issues as per SLA, overall tickets management escalated by Level-2 team.
Tier-2 Engineer	Second level support, Remote support, work on the tickets/issues escalated by the level-1 team and provide resolution as per defined SLA
Tier-1 Engineer	Help desk engineer, the first point of contact for API. 24X7X365 Monitoring, ticket creation, Phone call support, Chat support, initial triage, etc.

II. PROCESS FOR STATUS REPORTING, INCLUDING SLA PERFORMANCE

Smart IMS will review the status of the overall tickets, engineers based as per the below provided perioding review meetings held between API and Smart IMS Team which involves discussion on the overall ticket count, SLA breach, etc.

Frequency	Agenda	Day	Required Teams
Weekly	Support activities and incident management process discussion by API and Smart IMS support teams, discussion on the recurring issues and daily hurdles	Every Monday	Smart IMS & API Operation Team
Monthly	Project review and discussion on support activities across API sites, and API Monthly maintenance plans and key responsibilities.	Last day of Month	Smart IMS Account Manager & API Project Manager
Quarterly	Project review by the Smart IMS & API management teams, and support activities update. Introduction of any new plans/Services to improve current support/ business.	Last Monday of Quarter	Smart IMS & API Program / Delivery Executives

h) SMART IMS CUSTOMER DOCUMENT AND FAQ MANAGEMENT CAPABILITIES

Smart IMS stores all its information on a secured Microsoft SharePoint location with a secure authentication method. Smart IMS has its document management system with the following key areas enabled:

- a. Ticket resolution and RCA Analysis Document
- b. Knowledge Management Document for self-service to control the inflow of trivial issues.
- c. Escalation process flows

- d. Version Control
- e. Custom Permissions
- f. Cloud Access

However, given the requirement in API RFP, the team will manage and store all the knowledge management documents on ITSM application Provance.

i) BILLING PROCESS FOR TRAVEL COSTS AND/ OR TRAVEL TIME TO API SITES

Smart IMS will provision the visit of the technical staff at API sites. The travel, boarding, and lodging cost will initially be borne by Smart IMS and actual bills will be submitted to API for reimbursement with the monthly payment of the services.

j) DESCRIBE THE COSTS AND TERM/DURATION REQUIREMENTS FOR THE PROPOSAL. INCLUDE DISCOUNTS/INCENTIVES FOR LONGER TERMS IF AVAILABLE.

The complete cost and term/ duration requirement is provided in the attached Annexure – I: API Cost Proposal.

2. API SCOPE OF SERVICES:

The objective of the API RFP is not only to select a service provider that can manage API's Infrastructure remotely and at the onsite location at Washington DC, but also to improve performance, reduce IT operating costs, provide additional capabilities, reduce risks and/or improve resilience over time.

The Smart IMS has over 20 years of experience in providing infrastructure support services to several global customers including 40+ fortune 500 customers. This extensive experience of Smart IMS provides the required processes, tools, people, and reusable components built during the last two decades which would help deliver the expected results to API.

Devices in Scope:

Sl No.	End Point Inventory	
	OS	Quantity
1	Windows 10	459
2	Windows 8/8.1	1
3	Windows 7	100
4	Apple Mac OS	5
Total		565

Sl. No.	Server Environment	Quantity
		Server OS
1	Windows 2008 R2	43
2	Windows 2012 R2	60
3	Windows 2016	118
4	Windows 2019	1
5	Windows 2003	9
6	Windows NT	1
7	Free BSD	5
8	Ubuntu Linux	2
Total		243

Sl. No.	Hardware	
	Device	Quantity
2	Nimble SAN	2
3	Firewall	16
4	Router	11
5	Switches	44
6	Wireless AP	40
7	Laptops	565
8	Applications	24
9	Other Appliances	10

Applications In Scope of MSP:

Sl No.	Applications Under Support							
	Application Name	Vendor	On Prem/ Cloud	Business Purpose	Vendor Support Available?	Application Support	Application Infrastructure Support	Type of Support
1	Absolute Computrace	Absolute	Prem	Laptop Security	Yes	Yes	Yes	Service Desk installs on staff computers. Client install only - no
2	Adobe Creative Suite	Adobe	Cloud	Graphics	Yes	Yes	Yes	Service Desk installs on staff computers. Client install only - no
3	Alienvault	ATT	Cloud	SIEM/Cybersecurity Monitoring	Yes	Yes	Yes	Client Install Only
4	AnyConnect	Cisco	Prem	VPN Access	Yes	Yes	Yes	Service Desk installs on staff computers and manage the firewalls
5	Azure Active Directory	Microsoft	Cloud	Network Object Mgmt	Yes	No	Yes	Support AD Connect -
6	Azure Cloud Service	Microsoft	Cloud	Cloud Virtualization	Yes	N/A	Yes	Provide Tier 2/3 support. Includes provisioning, configuring, and monitoring Windows Virtual Desktop.
7	Cisco UC	Cisco	Cloud	VOIP Telephony	Yes	Yes	Yes	VOIP equipment and config management
8	CMS	API	Prem	API Contract Tracking	No	No	Yes	Service Desk installs on staff computers
9	Cylance Protect	Cylance	Both	Server & Endpoint Security	Yes	Yes	Yes	monitor and escalates issues to vendor
10	Dynamics 365	Microsoft	Cloud	Stakeholder Engagement Management	Yes	No	Yes	assign/remove licenses, assign service requests to the Dynamics 365 internal support team

11	Dynamics GP	Microsoft	Prem	Financial Management	Yes	No	Yes	configure, manage, and monitor application servers, operating system and storage, perform system backup and recovery, perform access management to the server
12	iBoss	Verizon	Cloud	Web Content Filtering	Yes	Yes	No	Service Desk installs on staff computers
13	KACE	Quest	Prem	Contract request tracking and Call Center Tier 1 support	Yes	No	Yes	Very hands off for MSP. Used only for ticketing for customer facing solutions.
14	Mimecast	Mimecast	Cloud	Malware Protection	Yes	Yes	No	Provide full management
15	Office 365 Applications	Microsoft	Cloud	Office Productivity	Yes	Yes	Yes	Service Desk installs on staff computers. F1 and E5 tenant account.
16	Office 365 Exchange	Microsoft	Hybrid	Office Productivity	Yes	Yes	Yes	
17	Pulse Secure	Pulse	Prem	VPN Access	Yes	Yes	Yes	Service Desk installs on staff computers / MSP manages VPN
18	Route 53	AWS	Cloud	DNS	Yes	Yes	No	Main external DNS entries - MSP manages
19	SAS	SAS Institute	Prem	Data Analysis Software	Yes	No	Yes	Service Desk installs on (Limited) staff computers utilize this application for privileged account access and secure passwords.
20	Secret Server	Thycotic	Cloud	Password and Privilege Mgmt	Yes	Yes	No	

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21	Umbrella	Cisco	Cloud	Web Content Filtering	Yes	Yes	Yes	Service Desk installs on staff computers and manage whitelist domains.
22	VMWare	VMWare	Prem	Hypervisor	Yes	Yes	Yes	Manage everything - including licensing. Upgrades, patching. Cisco Chassis - 6 hosts prod, 4 in dev. 1250 virtual devices.
23	Windows OS	Microsoft	Hybrid	OS	Yes	Yes	Yes	
24	Windows Server Update Service	Microsoft	Prem	Server Patching	Yes	Yes	Yes	Fully manage and utilize for server patching.
25	Provance ITSM (runs in Dynamics 365)	Provance	Cloud	ITSM Platform	Yes		No	API internal ticketing - work assignments for MSP Tier 1. Source of SLA data.

KEY API REQUIREMENT AND OUR UNDERSTANDING

- API released this RFP to choose a service provider-cum-partner who could provide a quality service for Infrastructure management for 3 to 5 years.
- Another key expectation of the API is to provide onsite support for API staff and VIPs at API headquarter in Washington DC.
- API is expecting the service provider to have extensive experience and ability to support on-premises IT equipment, colocation equipment, and Azure Cloud-based environment 24x7x365
- API expects the service provider to work as a consultant in building new IT capabilities, improvement in efficiency, and assist in IT service management, asset tracking, cost management, and budget planning.
- The service level expectation of API is to make sure that system availability is as good as 99.99% that means all business-critical issues/tickets must be resolved ASAP, following the defined SLA so that systems do not stop.
- The API also requires SI to adhere to API change control, security, and disaster recovery processes.

SERVICE DESK SUPPORT FOR OFFICE, EXECUTIVE AND VIP PERSONNEL

- On-site daily support of all IT functions to support office
- On-site service desks hours at the headquarters locations from 7:00 am to 6:00 pm EST
- IT Service Desk On-Site
- Support Hours
- Support VIP users 24x7
- Application Support
- Support workers both on and off the corporate network
- Support and end-user training for commodity applications such as Microsoft Office 365 and Adobe Creative Suite
- Comprehensive support for any IT issues involving end-user workstations, laptops, tablets
- Installation and configuration of operating system and software for workstations, laptops, and tablets
- Firmware updates, OS, and Application Patching for workstations, laptops, and tablets.
- Proactive monitor and resolve end-user device issues including, user access/password issues, disk space issues, system performance issues, and patch status
- Provide full endpoint Lifecycle Management
- Adds/Changes/Moves
- Support remote access for users (VPN and RDS)
- Provide onsite end-user support as needed for API remote locations
- Hardware Support:

- Endpoint Patching:
- Coordinate IT support efforts with the vendor providing on-site support for the Huston Office.
- Moving to a “zero-touch” deployment model for new endpoint devices using Microsoft Endpoint Manager (formally InTune/SCCM).

24x7x365 MONITORING & SUPPORT FOR DATA CENTRES

- Monitor and support physical and virtual server environment, cloud and colocation infrastructure, and unified communications systems 24 hours per day, 365 days per year.
- Proactively monitor and resolve server issues including performance, disk space issues, patch status, server security.
- Provide full Lifecycle Management for server hardware
- Installation and configuration of operating system and software for servers.
- Firmware updates, OS, and Application Patching for servers.
- Monitor server performance and make scaling/sizing recommendations as appropriate.
- Adhere to API Change control processes and procedures. All change management activity will be tracked and managed in Provance.
- Maintain DR plans and perform Data Center failover testing, annually at a minimum.
- Monitor for and escalate any security incidents to API Cybersecurity Lead. Assist cybersecurity firms (as engaged) in incident response if necessary. security incidents include:
 - Computer system breach
 - Unauthorized access to, or use of, Systems, software, or data
 - Loss of theft of equipment storing institutional data
 - Denial of service attack
 - Interference with the intended use of IT resources
 - Compromised user accounts
- Perform root cause analysis for significant and/or frequent issues/outages along with remediation follow-up to reduce or eliminate the possibility for recurrence.

24x7x365 MONITORING & SUPPORT OF IT SYSTEMS AND INFRASTRUCTURE

- Generate, update, and maintain documentation relating to service configurations, network architecture, security parameters as well as procedures for common IT tasks in the environment
- Installation and configuration of operating system and software, where applicable, for network and UC hardware and devices.
- Firmware updates, and software patching for network and UC hardware and devices.
- Monitor and respond to alerts for all network devices/systems on a 24x7x365 basis.
- Monitor internet connectivity at each location. Escalate issues to managed voice/data provider as appropriate (Verizon). Coordinate with managed voice/data network provider as necessary for service add/change/moves.
- Configure, monitor, and manage wireless networks, access points, and Wi-Fi security (Meraki and/or Versa based solution)
- Configure, monitor, manage and routinely test server backups following Recovery Point Objective/Recovery Time Objective (RPO/RTO) requirements.
- Monitor, support, and manage API’s unified communication platform (Cisco UC).
- Perform Security Management functions, to include:
 - Network/system access management - Assignment of user permissions via Active Directory, assignment of permissions,
 - Ensure log monitoring software for cybersecurity vendors is installed.

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- Antivirus/Endpoint protection monitoring and updating.
- Configure and enforce Endpoint Protection and encryption (e.g., Cylance, Absolute, Bit locker)
- Perform root cause analysis for significant and/or frequent issues/outages along with remediation follow-up to reduce or eliminate the possibility for recurrence.
- Monitor infrastructure components across the organization (switches, firewalls) and respond to issues including, but not limited to abnormal interface utilization, interface up/down status changes, high CPU utilization, high memory utilization, interface packet errors/ discards/ retransmits.
- Ensure PCI compliance for IT environments associated with credit card processing; including, but not limited to, change control processes and approvals, data encryption, traffic segregation, and device compliance requirements.
- Coordinate and work with existing Cyber Security providers (Avertium, Blackpoint) as necessary.
- Coordinate with Audio Visual (A/V) Managed service provider (Corbett Technology Solutions) to support conference room equipment.
- Adhere to API Change control processes and procedures. All change management activity will be tracked and managed in Provance.

SECTION 2: IT SERVICE MANAGEMENT & SLAs

OUR PROPOSED SOLUTION:

The current ITSM tool that is used by API is **Provance**. API expects the service provider to utilize Provance for ticket management and to document the resolution of tickets and maintain all the knowledge documents.

The SLA for the tickets will also be recorded in the Provance and the ticket data available in the system will be used to calculate the performance of the service provider against the SLA.

The onsite support staff of the service provider will monitor Provance for incoming tickets. The Tier 1 support usually will be provided by the onsite support staff and any other tickets that require further assistance can be transferred to the support staff located in a remote location for further processing and resolution.

System Availability – Smart IMS will use an in-house monitoring tool (Avatar), or API provided to monitor the API IT environment 24x7x365 and report for any alerts /warnings as per defined SLA. The Team will ensure to maintain SLA and system Availability as defined by API (99.99 %).

the Smart IMS approach to monitoring critical systems is defined through an industry-standard threshold that monitors real-time services, up-down status, etc.

Acknowledgment Time – Smart IMS Onsite Support technician will ensure to acknowledge the ticket as per defined time, priority through mentioned modes of communication using API's ITSM (Provance) tool. Our engineer will ensure to record all required details to resolve the ticket.

Our Engineers typically acknowledge the tickets through defined modes of communication either phone, call, or email. Wherever possible there are automatically generated response templates defined on the ticketing system.

Response Time – We will ensure to maintain the response time SLA as defined by API. We understand the importance of responding on time after acknowledgment of the ticket.

Resolution Time – Smart IMS will ensure to work, track/ follow-up on the ticket with the respective teams until closure, and make sure to achieve defined SLA.

i. OUR ABILITY TO WORK WITH API's ITSM SOLUTION

We understand that our engineers are required to use API's ITSM solution for support activities. Our engineers have experience working on different ITSM tools and will be able to use API's ITSM solution (Provance) to update the tickets. The Engineer will focus on:

- Create, track, closure the tickets on ITSM.
- Coordinate with different teams to receive frequent updates and have them updated in ITSM solution.
- Use one ITSM solution to track all incidents across vendors, partners, different teams.

ii. SMART IMS ABILITY TO WORK WITH THE SLA MEASURES

Smart IMS understands the API business requirements and their SLA has been set according to the best practices. Our engineers can work on the Client's customize SLA as per the business criticality and organization policy.

Smart IMS's team will ensure to restore normal service operations as quickly as possible to minimize the adverse impact on business operations. We will ensure that the best possible levels of service quality and availability are maintained. 'Normal service operation' is defined here as service operation within the Service Level Agreement (SLA) limits.

iii. DESCRIBE HOW MSP WILL BE HELD FINANCIALLY RESPONSIBLE FOR ACHIEVING THE PROPOSED SLAS, TO BE ASSESSED ON A QUARTERLY LEVEL.

Smart IMS follows Service Level Objectives (SLOs) defined as per the industry best standards, SLO response times are based upon the business impact of the incident, as per the following assigned priorities: See below the proposed SLO Targets:

Refer to the below section for indicative service level agreements. At the end of the agreed initial period (typically 3 months from the start of the Support Phase), the SLA metrics are analyzed to characterize the volumes and resolution efficiencies and the final SLA parameters shall be jointly agreed upon between API and Smart IMS. During this time API and Smart IMS will finalize and freeze the SLA framework.

The following is the Service Level Remedial Procedure:

i. SLA Control and Analysis

SLA control and analysis is a metrics-driven process and Smart IMS and API will do a periodic review of these metrics as recorded in the ticketing system.

It is suggested that at the end of each month or after completing a milestone, the SLA reports are taken out and discussed among the team as well as with API. This ensures acceptance of the SLA data at the time of generation itself.

ii. Root Cause Analysis

In the event, that the value of a Service Level in a reporting period fails to meet the applicable targeted service level (TSL), Smart IMS will perform a root cause analysis of the failure. Smart IMS shall submit a report to API detailing the root causes and identified actions to be performed by Smart IMS to ensure the achievement of the TSL in the next reporting period. The report is to be submitted to API no later than 7 days after the end of the reporting period in which the SLM failed to meet the TSL.

iii. Exception Conditions

Where SIMS can reasonably prove to API that any of the excluded events have occurred, then the Service Level calculations may be adjusted by SIMS to reflect the exclusion of events affecting the quality of service that is attributable to any of the following:

- SLA will be the joint responsibility of SIMS and API during the Support.
- API's acts, errors, omissions, or breaches of the Agreement.
- API failure to permit SIMS access to API systems.
- Events occurring within periods agreed in the Technical change control procedure.
- Problems are reported through documented and prescribed escalation procedure, where the detection of such problems is dependent upon API's notification through such a procedure.
- SLA compliance from OEM/ Third Parties

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Ticket Priority				Target Time (Business Hours). Business Hours restriction does not apply to P1 tickets				Performance Level Goal	Service Level Obligation
Ticket Type	Priority	Urgency	Impact	Mode of Ticket Creation	Acknowledgement	Response	Resolution		
P1	Critical	High	High	Phone call to Service Desk (P1 tickets will not come via email)	< 10 Min	<1 Hour	8 Hours	>98%	5% of Monthly Revenue
P2	High	High	Medium	E-mail	< 10 Min	<1 Hour	16 Hours	>98%	2.5% of Monthly Revenue
P2	High	Medium	High	E-mail	< 10 Min	<1 Hour	16 Hours	>98%	2.5% of Monthly Revenue
P3	Medium	High	Low	E-mail	< 10 Min	<24 Hours	24 Hours	>95%	1.25% of Monthly Revenue
P3	Medium	Medium	Medium	E-mail	< 10 Min	<24 Hours	24 Hours	>95%	1.25% of Monthly Revenue
P3	Medium	Low	High	E-mail	< 10 Min	<24 Hours	24 Hours	>95%	1.25% of Monthly Revenue
P4	Low	Medium	Low	E-mail	< 10 Min	<24 Hours	Undefined		
P4	Low	Low	Medium	E-mail	< 10 Min	<24 Hours	Undefined		
P4	Low	Low	Low	E-mail	< 10 Min	<24 Hours	Undefined		

Table 1: Smart IMS Proposed SLO Targets

SECTION 3: SERVICE DESK SUPPORT FOR OFFICE, EXECUTIVE AND VIP PERSONNEL

- a) **IT Service Desk On-Site Staff:** API would like to have dedicated support staff on-site at their Washington DC headquarters from 7:00 am to 6:00 pm Eastern Time workdays to provide at least Tier 1 support. API intends the Service Desk will be the primary point of contact for all requests, incidents, and problems

HELPDESK SERVICES:

Onsite support at API HQ-Washington DC

As per the requirement, the onsite infrastructure & user support service will be provided to the API at Washington DC when COVID safety protocols are relaxed. The support engineer to address infrastructure-related issues and IMAC (install, move, add, change) requests will be provided to 256 users at the API headquarter.

Our Deskside support service undertakes a lifecycle approach towards managing the infrastructure end-user devices including laptops, desktops, and other desk-side devices. Our Desk-side support capabilities include:

- Tier-1 Hardware breaks/fix support service and coordination with HW vendor for support.
- Peripheral device support
- Install, Move, Add, & Change (IMAC) services
- Infrastructure support services
- Application support services
- PBX Phone Support

We understand the importance of the technical skills, customer service relationship, and rapid support that is required by API in their critical business environment. Our customer-centric desk-side support service provides the option of 4 hours of support and NBD support service for P1 and P2 tickets. The service for DSS can be raised through the phone call or in the ticket management tool which is picked by the helpdesk support service executive and routed to the onsite engineer to provide support. The onsite support engineers are available from 7:00 AM EST to 6:00 PM EST (11 hours a day for 5 days a week).

Our Helpdesk engineer will assist through all the above-mentioned communication methods; resolve the issue within defined SLA or assign the ticket to the next level engineer and follow up on open incidents and update API users until closure.

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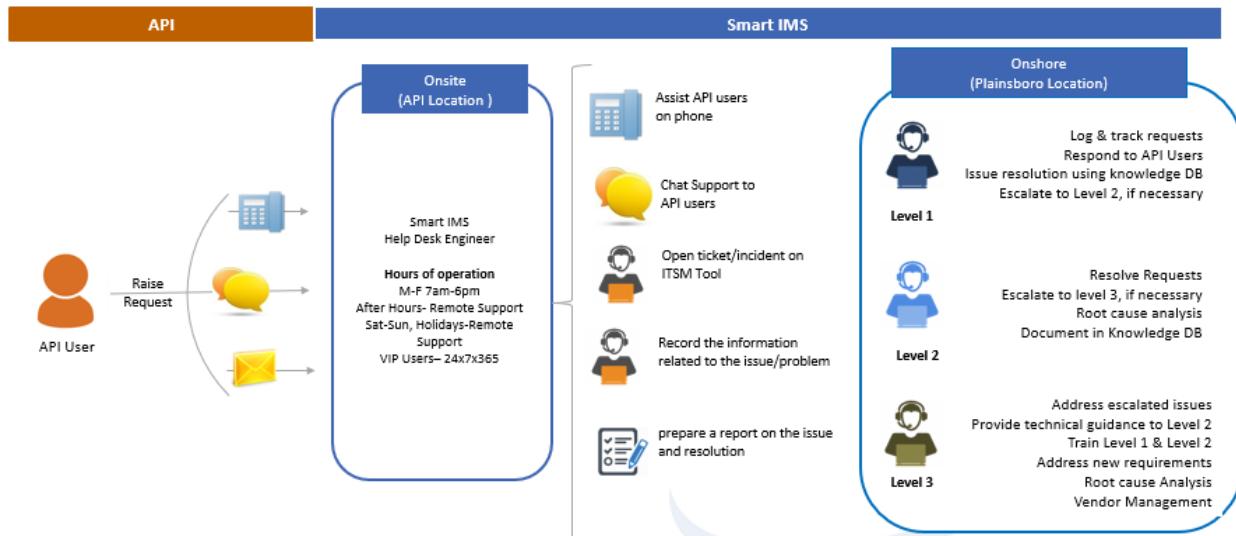


Figure 7: Smart IMS Engagement Model for On-site Support

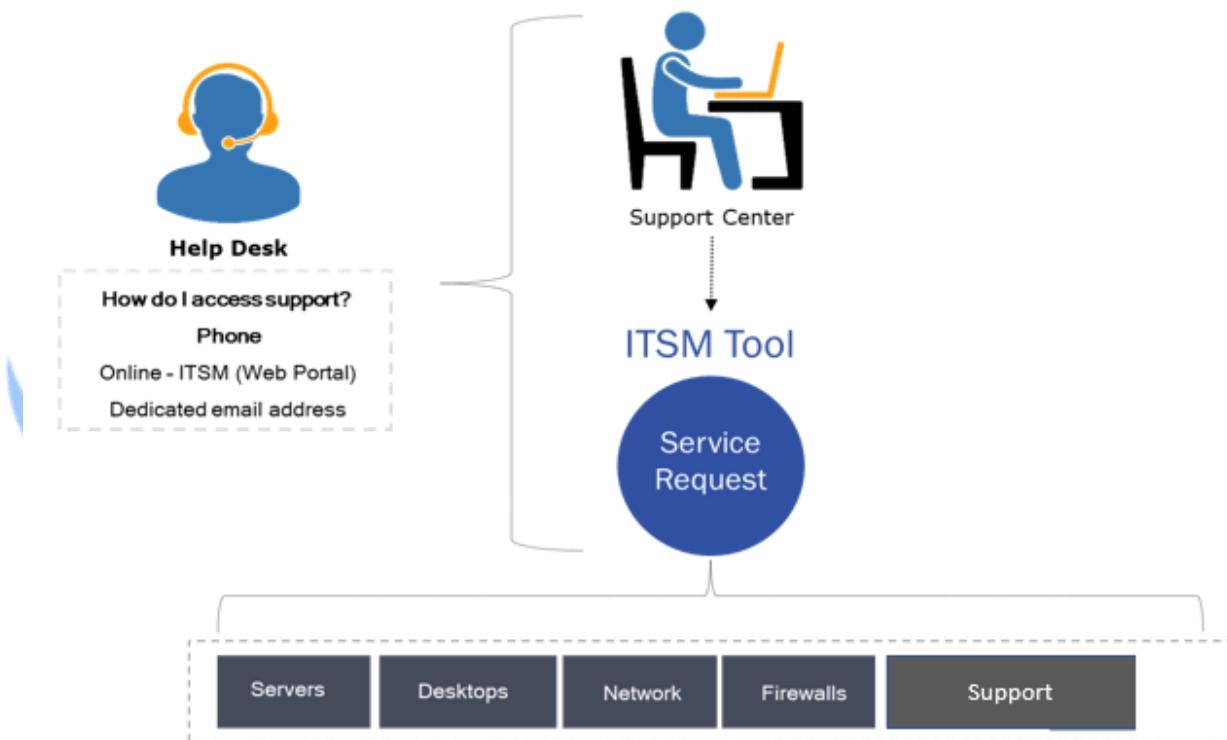


Figure 8: Smart IMS Helpdesk Support Services

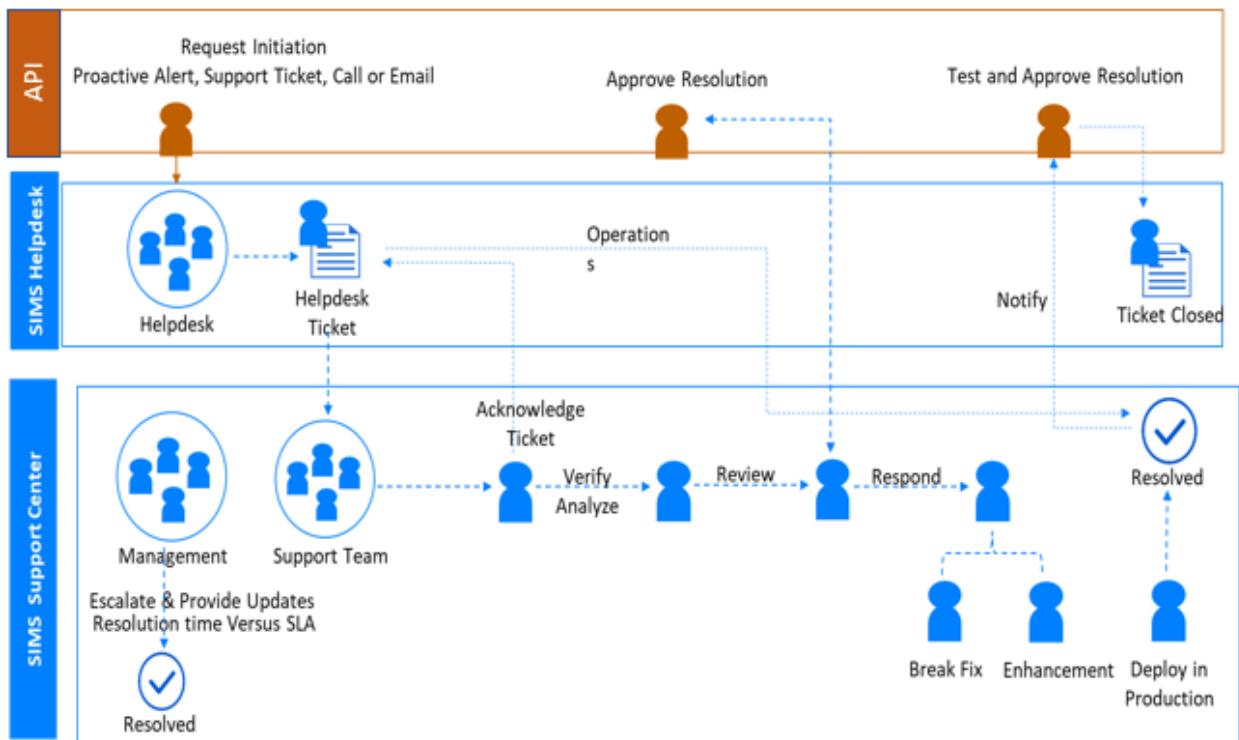


Figure 9: Smart IMS Incident Management Flow

- b) **Support Hours:** *Support should be available 24 hours a day, 365 days a year. During non-staffed hours [see item 3.a), above] API expects the MSP to remotely monitor the ITSM system and Support Desk phone, and address issues according to the priorities defined in the proposed Service Level Agreement.*

Support hours requirement of API for specific support model to ensure business continuity, we will ensure to monitor and provide all means of support to API users as defined process/SLA.

SUPPORT HOURS (24 X 7 X 365):

Support Hours includes Onsite & Offshore coverage (remote).

24 X 7 Support Model – Shift Timing	
Onsite Support	7:00 AM EST – 6:00 PM EST
Global Support (India Location)	24X7X365
Weekend / Support	24X7 (except API Holidays)
VIP Users	24 x 7 (API Dedicated VOIP)

- c) **Support VIP users 24x7.** *API will designate a limited number of VIP users who will be able to receive support at any time from the dedicated technical account team assigned to API. This service would require a call placed by the VIP to the API Service Desk phone - an API VOIP extension that is to be monitored by the MSP.*

ONSITE SUPPORT (VIP SUPPORT)

VIP USER SUPPORT

Smart IMS technician will monitor API dedicated VOIP extension 24x7 to support VIP users and track all tickets in the ITSM Provance system. Smart IMS understands the importance of support to VIP users and as per the defined process set by API to address the calls/issues raised by the VIP users and will consider all tickets raised by VIP users as P1

d) Application Support: *Table 8 - Application Inventory, on page 20 contains a list of the software applications in use within API. MSP is not expected to be knowledgeable in all these applications, however, several apps will require MSP to support and/or perform client installation on workstations, laptops, tablets, and/or servers. The MSP may need to coordinate issue resolution with various software publishers or other external support entities. API expects the MSP to take the lead in these cases and become the point of contact to drive the issue resolution process.*

We understand that API uses a wide range of applications spread across servers, networks, workstations and is on-prem & Cloud-based. The table below explains where the support is required from us and when we need to go for vendor support.

SI No.	Applications Under Support							
	Application Name	Vendor	On Prem/Cloud	Business Purpose	Vendor Support Available?	Application Support	Application Infrastructure Support	Type of Support
1	Absolute Computrace	Absolute	Prem	Laptop Security	Yes	Yes	Yes	Service Desk installs on staff computers. Client install only - no
2	Adobe Creative Suite	Adobe	Cloud	Graphics	Yes	Yes	Yes	Service Desk installs on staff computers. Client install only - no
3	Alienvault	ATT	Cloud	SIEM/Cybersecurity Monitoring	Yes	Yes	Yes	Client Install Only
4	AnyConnect	Cisco	Prem	VPN Access	Yes	Yes	Yes	Service Desk installs on staff computers and manage the firewalls
5	Azure Active Directory	Microsoft	Cloud	Network Object Mgmt	Yes	No	Yes	Support AD Connect -
6	Azure Cloud Service	Microsoft	Cloud	Cloud Virtualization	Yes	NIA	Yes	Provide Tier 2/3 support. Includes provisioning, configuring, and monitoring Windows Virtual Desktop.
7	Cisco UC	Cisco	Cloud	VOIP Telephony	Yes	Yes	Yes	VOIP equipment and config management
8	CMS	API	Prem	API Contract Tracking	No	No	Yes	Service Desk installs on staff computers
9	Cylance Protect	Cylance	Both	Server & Endpoint Security	Yes	Yes	Yes	monitor and escalates issues to vendor
10	Dynamics 365	Microsoft	Cloud	Stakeholder Engagement Management	Yes	No	Yes	assign/remove licenses, assign service requests to the Dynamics 365 internal support team

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11	Dynamics GP	Microsoft	Prem	Financial Management	Yes	No	Yes	configure, manage, and monitor application servers, operating system and storage. perform system backup and recovery, perform access management to the server
12	iBoss	Verizon	Cloud	Web Content Filtering	Yes	Yes	No	Service Desk installs on staff computers
13	KACE	Quest	Prem	Contract request tracking and Call Center Tier 1 support	Yes	No	Yes	Very hands off for MSP. Used only for ticketing for customer facing solutions.
14	Mimecast	Mimecast	Cloud	Malware Protection	Yes	Yes	No	Provide full management
15	Office 365 Applications	Microsoft	Cloud	Office Productivity	Yes	Yes	Yes	Service Desk installs on staff computers. F1 and E5 tenant account.
16	Office 365 Exchange	Microsoft	Hybrid	Office Productivity	Yes	Yes	Yes	
17	Pulse Secure	Pulse	Prem	VPN Access	Yes	Yes	Yes	Service Desk installs on staff computers / MSP manages VPN
18	Route 53	AWS	Cloud	DNS	Yes	Yes	No	Main external DNS entries - MSP manages
19	SAS	SAS Institute	Prem	Data Analysis Software	Yes	No	Yes	Service Desk installs on (Limited) staff computers
20	Secret Server	Thycotic	Cloud	Password and Privilege Mgmt	Yes	Yes	No	utilize this application for privileged account access and secure passwords.
21	Umbrella	Cisco	Cloud	Web Content Filtering	Yes	Yes	Yes	Service Desk installs on staff computers and manage whitelist domains.
22	VMWare	VMWare	Prem	Hypervisor	Yes	Yes	Yes	Manage everything - including licensing. Upgrades, patching. Cisco Chassis - 6 hosts prod, 4 in dev. 1250 virtual devices.
23	Windows OS	Microsoft	Hybrid	OS	Yes	Yes	Yes	
24	Windows Server Update Service	Microsoft	Prem	Server Patching	Yes	Yes	Yes	Fully manage and utilize for server patching.
25	Provance ITSM (runs in Dynamics 365)	Provance	Cloud	ITSM Platform	Yes		No	API internal ticketing - work assignments for MSP Tier 1. Source of SLA data.

We will assist API users to deploy application agents and coordinate with the application vendor for any issue. Our engineer will ensure to resolve the issue with-in the defined SLA by following-up with the vendor until closure. The SLA will stand on-hold if a ticket is pending with the device/application vendor.

e) Support workers both on and off the corporate network.

REMOTE SUPPORT SERVICES:

Smart IMS can use either existing remote support tools or propose an alternate tool for supporting the users outside or inside of the corporate network. If we have to propose an alternate tool, we have few tools that we are using for other customers that are on the cloud. Licensing cost for this tool has to be borne by API.

Remote Support Tool

Goto Assist

Refer to Section 5 for Tool Procurement Information

We will deploy a remote tool agent in all the required endpoints to support remotely.

API's goal to achieve effective and efficient remote support for end-users in terms of various applications, cloud, and IT infrastructure issues thereby reducing total cost. The way it has to achieve is referred to in **Section: 3 (G)**.

f) Provide support and end-user training for commodity applications such as Microsoft Office 365 and Adobe Creative Suite

MICROSOFT OFFICE 365 AND ADOBE CREATIVE SUITE SUPPORT:

The Team is well versed and has a clear understanding of the concepts of Microsoft Office 365, Adobe Creative Suite, Troubleshooting the issues related to this application, coordinate with the support to solve the issues on priority.

g) Provide comprehensive support for any IT issues involving end-user workstations, laptops, tablets.

COMPREHENSIVE SUPPORT (IT ENDPOINTS):

Skilled Smart IMS support engineers can track, troubleshoot and resolve the endpoint issues that have been alerted while proactively monitoring the environment. The team has expertise in handling user keeping the repository of issue logs and solution document that is helpful in self-management of the issues by the users with little guidance.

Some examples of typical issues for which we have supported in our other projects are:

- Domain Join Issues
- Windows – Blue Screen of Death
- Mac – Help with Passwords stored in Keychain.
- Mac- Help with Joining the MAC OS to Windows Domain
- Windows 10 – 100 Percent Disk usage
- Operating System Kernel Issues
- Drivers-related Issues.
- PCB Issues
- DISK I/O Issues

We understand API needs support with O365 administration and monitoring of SMTP relay agents for applications. A few of the generic issues that we are supporting but not limited to are given below

- User account issues
- Licencing issues
- Mailbox permissions
- Custom Permissions in O365 apps
- MFA support for Mobile devices

h) Installation and configuration of operating system and software for workstations, laptops, and tablets. Firmware updates, OS, and Application Patching for workstations, laptops, and tablets.

OS, APPLICATION DEPLOYMENT AND CONFIGURATION:

Smart IMS is capable of handling the installation, configuration of operating systems and Softwares. Our Engineers have the ability to perform the installation, configuration remotely using remote imaging software or use the current methodology in use by the API team for Servers, Network devices, UC devices.

Engineers understand that there might be some custom configuration involved during the configuration of the end-user devices and may differ from user to user and are capable of handling this according to the requirement while keeping in mind the current policies of the organization.

- i) ***Proactively monitor and resolve end-user device issues including, but not limited to, user access/password issues, disk space issues, system performance issues, and patch status.***

We will ensure to monitor the end-user devices using the monitoring tool provided by API or our proposed monitoring tool and work on alerts generated on endpoints as well as performance issues related to end-user devices.

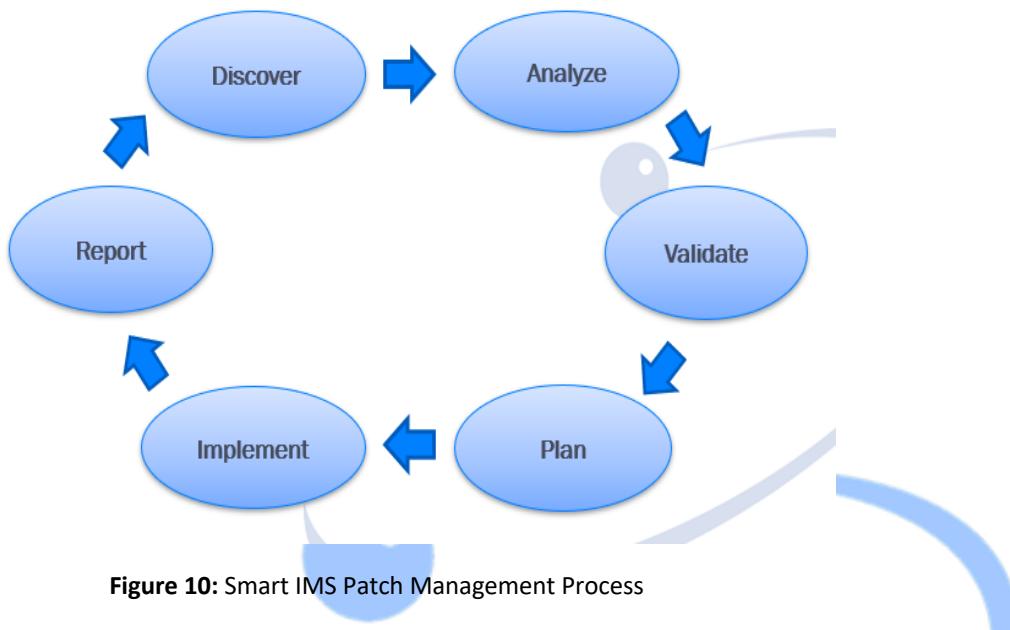
Our experience is one of the projects (HRW, IRC) in supporting end users' issues will better help API to address the issues like:

- Device Performance issues
- User account related issues
- Timely patching

PATCH MANAGEMENT

The Smart IMS team will maintain the endpoints updated with the latest patch. Provided by the hardware vendors, Microsoft, or other application vendors that are under support. In addition to endpoints, Smart IMS will keep track of Hardware/Network device patches, updates, and Firmware on regular basis. The team will create a patch management plan for API, create a Test environment (like Production), analyze patch compatibility with API environment, test required patches/updates in a Test environment, and propose for production patches as per business approval. We will ensure to apply all required patches within 7 days of release with API business approval for server and workstations as per API policies.

We will test each patch in the API test environment and make sure that all the applications are functioning as expected and there should not be any performance or other application issues related to patch deployment. Also, Servers/ network devices' health and performance issues will be tested thoroughly in the test environment. As a proactive plan, we are always ready with the rollback process if anything goes wrong with system/application performance.



- **Discover:** The discovery phase involves locating assets (database servers) and categorizing them.
- **Analyze:** Through the analysis process, current patch levels are determined, and a baseline policy is defined.
- **Research & Test:** In this phase, missing service packs and patches are researched and understood. A risk analysis will be done for missing patches
- **Planning:** Smart IMS will ensure that the release date(s) & time(s) for patches, fixes, and upgrades, are planned and coordinated, well in advance with the API. Additionally, a roll-back plan will also be created to meet any unexpected developments after patching is applied
- **Implement** “Remedy” the vulnerabilities found by applying the fixes and upgrades and bringing databases up to date. Apply service packs based on standard guidelines.
- **Report:** Smart IMS provides a comprehensive reporting process, to provide a very detailed and elaborate report of the patches and fixes applied. The changes are fully reviewed and verified. Any anomalies are detected and reported to the management.

j) Provide full endpoint Lifecycle Management:

Smart IMS has experience in handling end-to-end endpoint Lifecycle management which includes.

- **Inventory Management** – Smart IMS engineer will maintain the overall inventory of all the devices and update the inventory on regular basis. The helpdesk team will capture complete detail of all the existing devices/Services in Smart IMS suggested Inventory management tool or API suggested IT inventory template/tool. Licensing costs for the inventory management tool shall be borne by API.

Inventory Tool
Provance Asset Management Tool

- Device forecast as per history data/business trend

Refer to Section 5 for Tool Procurement Information

- k) Adds/Changes/Moves: IT processing for employee on-boarding, including equipment provisioning, deployment, AD user creation, Email account setup, configure application access. IT processing for employee off-boarding, including account lock-down, revocation of access rights across all applications, transfer of files to supervisor or replacement, redirect of the email (if appropriate), archive and/or deletion of Active Directory user account. MSP must support activation, deactivation, provisioning, and modification of user accounts 24x7x365.**

Smart IMS engineer will support API in completing all tasks related to the on-boarding, off-boarding of the employee.

Our Engineer will ensure to follow the process and policies while performing all the activities related to this task. This task involves:

- Gathering required information of the employee
- Understand the role and what are all the accesses that are under the employee role.
- Provisioning, de-provisioning, modification of all the user-related information 24 X7 X 265
- Documenting all the tasks and reporting as and when required

We have worked on a similar request for one of our projects where we have been involved in providing similar services.

- Request / Information received from HR about employee on-board / Off-board.
- The engineer starts preparing the Laptop with required applications to be provisioned / de-provisioning.
- Creation / Revoking of AD User / Email account / Application provisioning as per Organization IT policies

We follow all the guidelines as per Organization's the HR and IT Policies.

l) Support remote access for users (VPN and RDS).

We understand that API has an environment on-prem and cloud for VPN and services for RDS. Our engineers have the capability and experience to support end-users with the installation of the required software, import certificates, setup an RDS environment, troubleshooting VPN & RDS connectivity.

We have experience in our current projects (HRW, IRC) where we assist end-users with various issues related to:

- Site-to-Site VPN Issues
- Remote access issues to Azure.
- Client VPN (Application/Web)
- Citrix-based Remote Access.

m) Provide onsite end-user support as needed for API remote locations

Smart IMS understands the importance of the technical skills, customer service relationship, and rapid support that is required by API in their critical business environment. Our customer-centric desk-side support service provides the option of 4 hours response time and NBD support service for P1 and P2 tickets.

n) Hardware Support: MSP should manage the issue resolution process with hardware vendors for any workstation issues covered under warranty, including Return Merchandise Authorization (RMA) process management if required by the vendor. API is responsible for maintaining warranty coverage

Smart IMS engineer will assist to resolve hardware issues, vendor coordination for replacement/ repair devices that are under warranty, and propose/suggest API for new hardware if the device is EOL (End of Life). Our engineers understand the different types of hardware issues and can perform initial triage to overcome the issue, also report to the hardware vendor immediately to take action as a preventive measure.

RMA Process:

- Creation of Incident / Ticket
- Triage by L1
- The investigation by L2 Engineer and finalize the issue is related to hardware.
- Engineer raises a ticket with vendor.
- Follow up with vendor as per vendor SLA.
- Update the internal ticket with notes of the status
- Get the device repaired/replaced and close both the vendor and internal ticket.

o) Endpoint Patching: MSP will perform and monitor operating system patching for endpoints, and ensure any automated updates occur outside normal business hours based on location.

Smart IMS understands that endpoint patching is crucial for any organization. Our Engineers will review, analyze, execute, and monitor the patching for endpoints with utmost care.

- Our Engineers understand the criticality of the patches and have a clear understanding of the rollback process in case of patch incompatibility with the device. To handle this effectively, the patching cycle is planned outside business hours with minimal impact on the end-user basis of their location.
- We have prior experience in updating the devices as per the latest patch/firmware updates released. For Application patching, we will coordinate with the vendor and get the fixes/ releases to be deployed in the devices.
- Smart IMS can use the existing tools for patching/firmware updates or Smart IMS proposed tools.

We recommend using the below tool for Endpoint patching:

- SCCM

Refer to Section 5 for Tool Procurement Information

p) Coordinate IT support efforts with the vendor providing on-site support for the Houston Office.

Smart IMS understands the importance of how coordination is the key for onsite support and our team. We will make sure to have the collaboration and operations with the on-site support vendor and Smart IMS has no impact on API support.

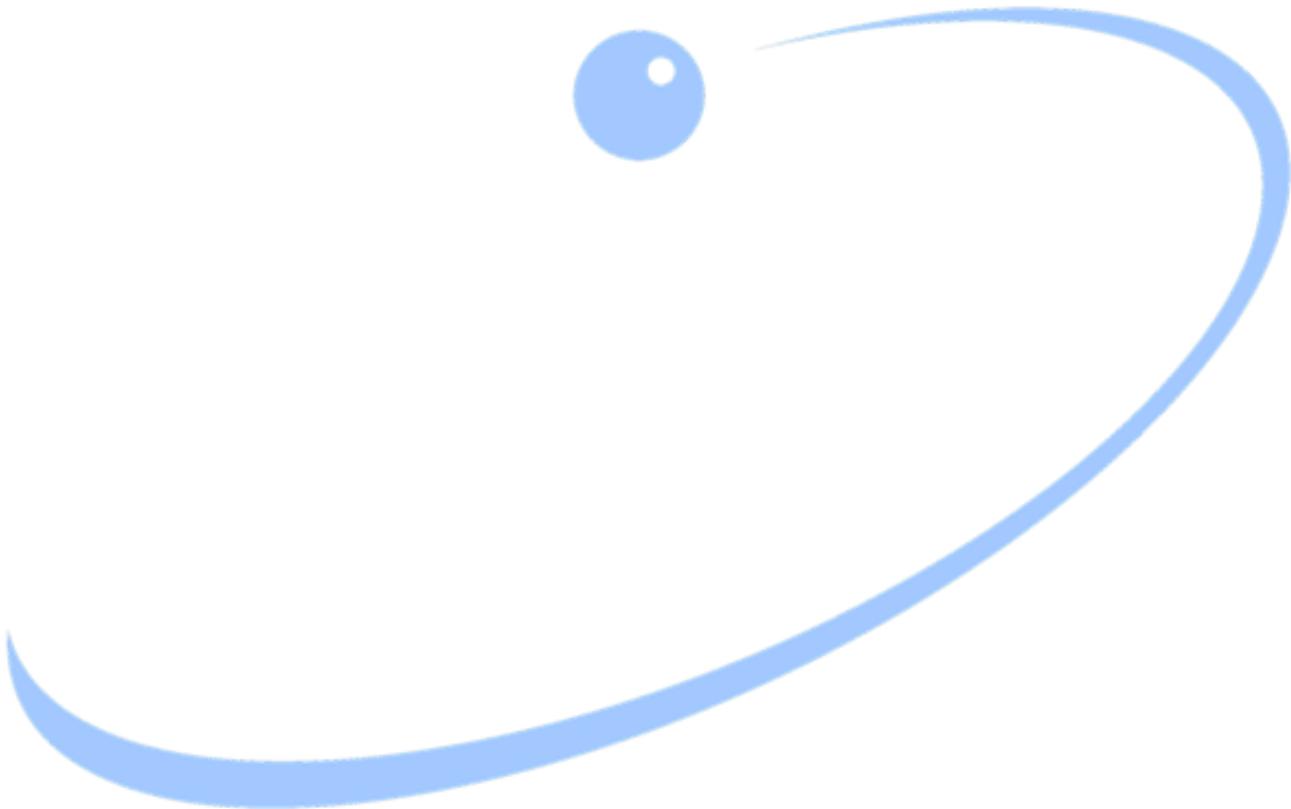
We have few customers where the support team is present on-site in several locations across the globe and the remote support team collaborates to solve the end-user issues, updating the workstations, vendor management, etc.

q) API is interested in moving to a “zero-touch” deployment model for new endpoint devices using Microsoft Endpoint Manager (formally InTune/SCCM).

We understand the zero-touch deployment methodology through Microsoft Endpoint Manager formerly Intune. During COVID, we implemented this solution for a few of our existing customers.

We are supporting one of the Non-profit organization customers (HRW) where the management of the workstations, laptops, mobile devices is being done through Intune.

Smart IMS understands how devices can be auto-enrolled to the Microsoft Endpoint Manager, how they can be segregated according to the Operating system, how custom policies can be defined, how the compliance of the device can be managed remotely.

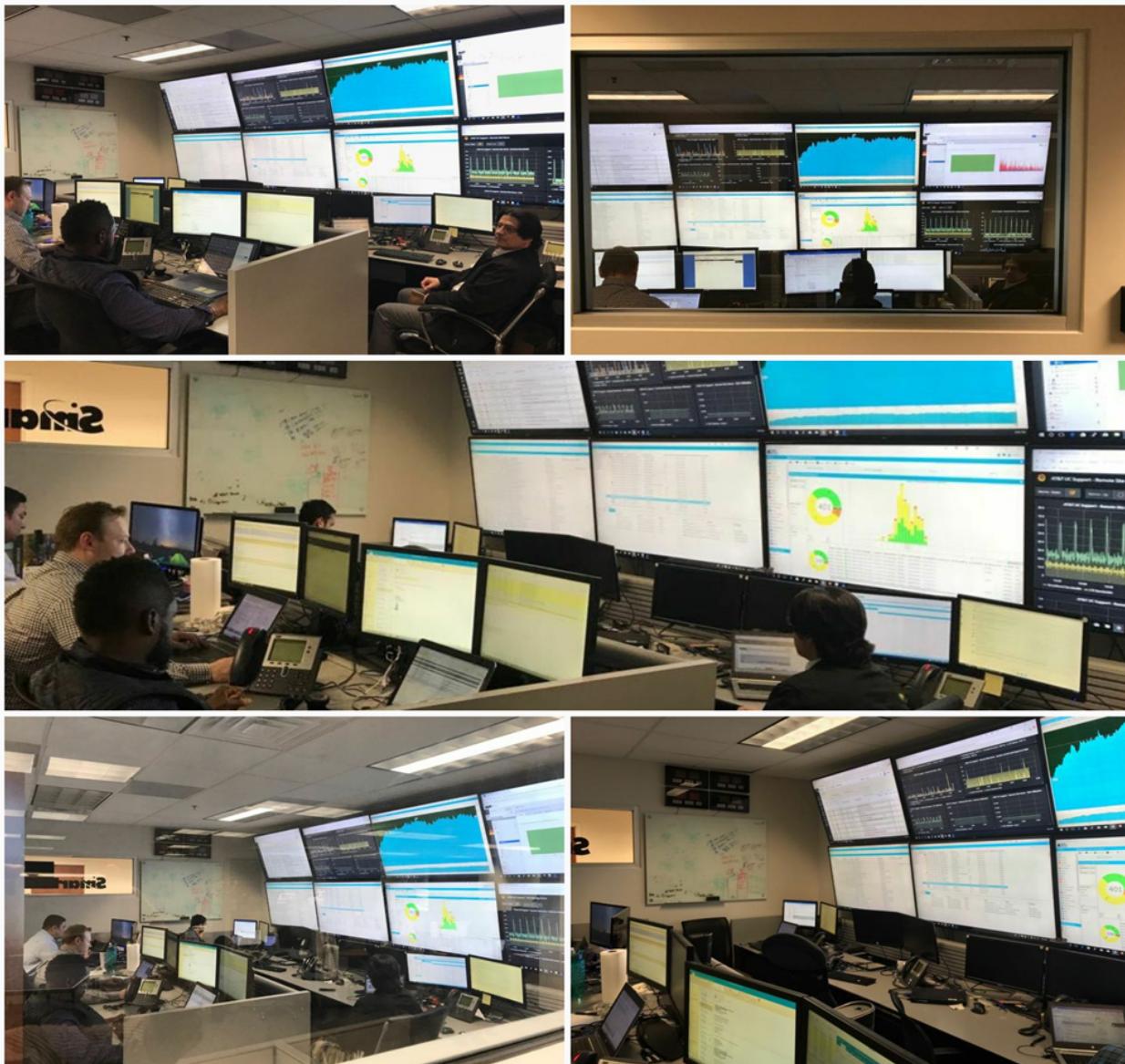


SECTION 4: PROVIDE 24X7X365 MONITORING & SUPPORT FOR DATA CENTERS

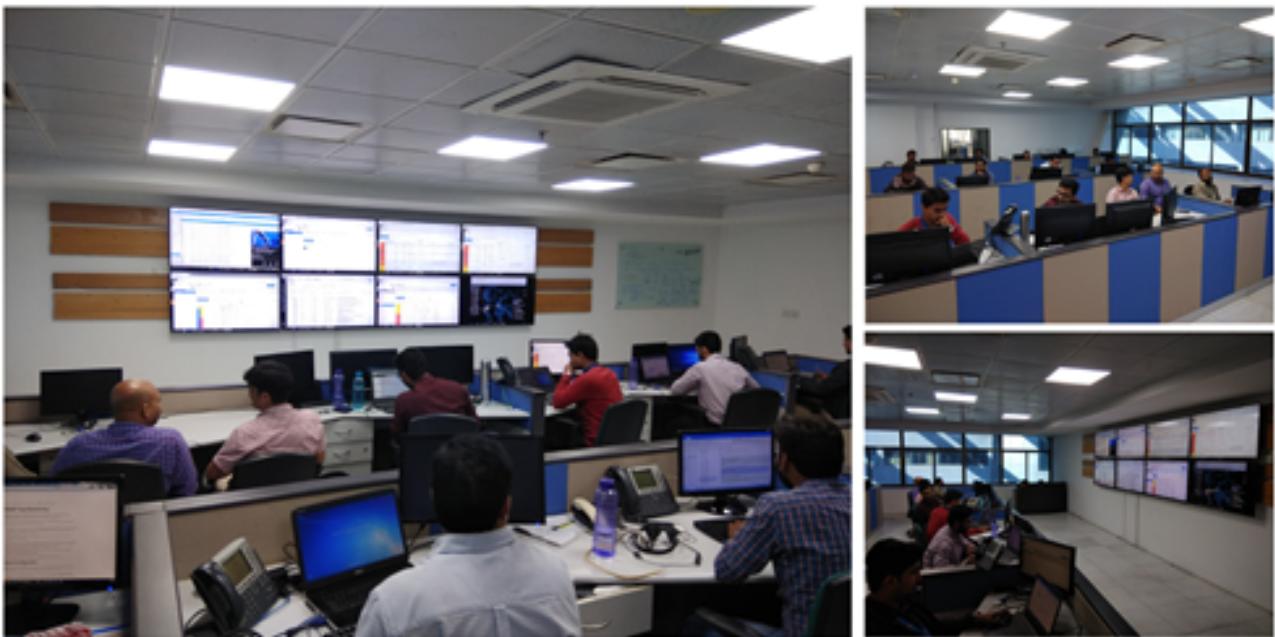
Smart IMS has Off-site and offshore application development, and infrastructure support centers based in Plainsboro, NJ, and Hyderabad, India. With our Geo-redundant GLOBAL NOCs, Infrastructure Management, App Development & support practices, Smart IMS is uniquely positioned to support API. Smart IMS combines its expertise from developing managed services platforms to offer unique network monitoring & management products, services, tools, and professional services.

SIMS PRIMARY AND SECONDARY LOCATION FOR MONITORING AND MANAGEMENT

Primary NOC and Command Center at Plainsboro, NJ



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- a) ***Monitor and support physical and virtual server environment, cloud and colocation infrastructure, and unified communications systems 24 hours per day, 365 days per year.***

24/7 MONITORING

The monitoring service will be provided as required by API. The NOC team will communicate with all the stakeholders using the appropriate method to bring the ticket to closure and restore the health of the device.

HARDWARE BREAK FIX MANAGEMENT / VENDOR LIAISON

SIMS will take ownership of all network components in the scope of this project from the time the issue is identified through final resolution. If during the process of troubleshooting, we need to reach out to the specific support vendors or Cisco, we would engage their resources and work on the resolution of the issue at hand. We will also oversee the quality of delivery of services by various vendors and advise API if any issue arises, including the recommendation to modify contracted services or terminate and/or replace a contract if we believe that would improve the overall quality of service to API.

INCIDENT MANAGEMENT

The primary goal of the Incident Management process is to restore normal service operation as quickly as possible and minimize the adverse impact on business operations, thus ensuring that the best possible levels of service quality and availability are maintained. 'Normal service operation' is defined here as service operation within Service Level Agreement (SLA).

Incident: An 'Incident' is any event that is not part of the standard operation of a service, and which causes, or may cause, an interruption to, or a reduction in, the quality of that service. Few examples of Incidents:

- Service not available
- Network/Network Devices preventing Customer from working
- Configuration inaccessible

Our robust yet flexible incident management process for API can be summarized through the below flow.

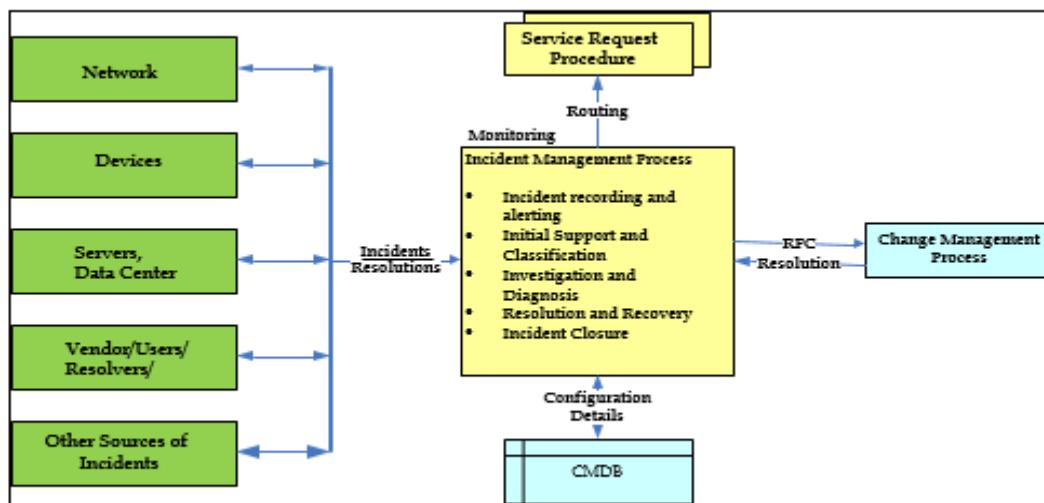


Figure 11: Smart IMS Incident Management Process

Some of the activities undertaken in Incident Monitoring are:

- Proactive and reactive monitoring of all the managed devices round-the-clock (24x7x365)
- Round the clock monitoring and support for Application/Website alerts/warnings
- Recording basic details of the Incident
- Assigning impact and urgency, and thereby defining priority
- Classification and initial support for the incident
- Create a ticket
- Notify/Escalate the incident

REMOTE INFRASTRUCTURE MONITORING:

Smart IMS understands that there are multiple sites, critical servers, network devices, workstations, laptops, Websites, Applications & Databases, and other IT infrastructure resources that need support. To provide this support, Smart IMS will either use AVATAR or API-provided monitoring and alerting solution for 24X7X365 proactive monitoring.

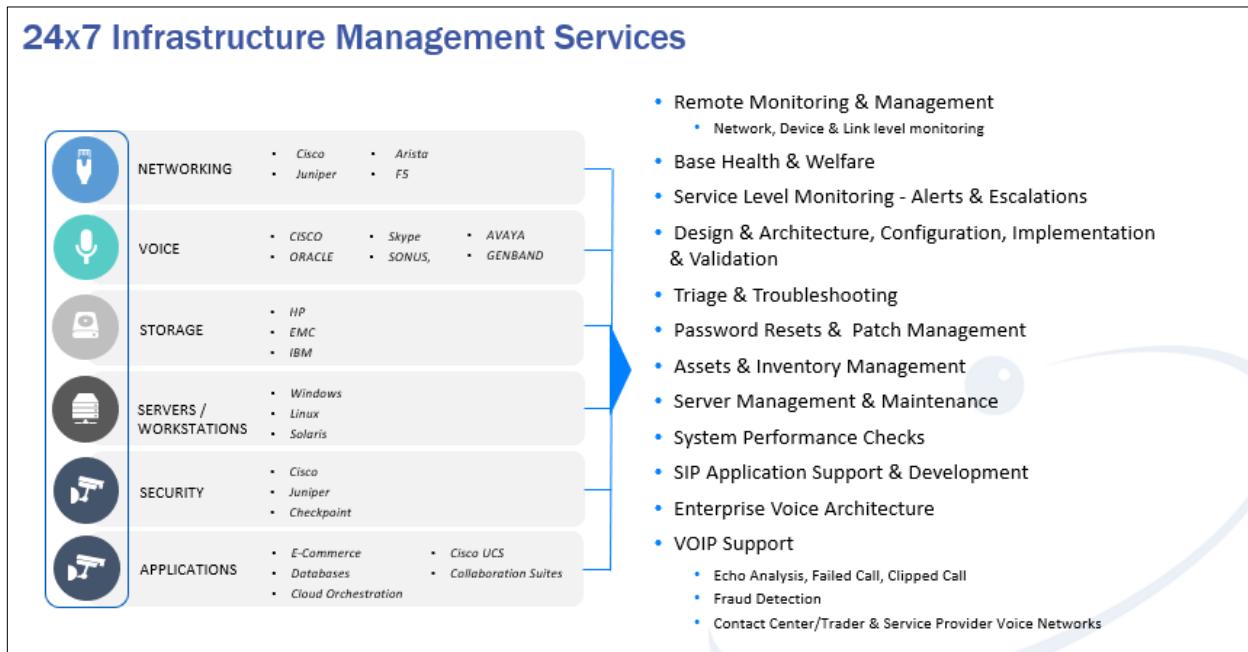


Figure 12: Smart IMS 24x7 Infrastructure Management Services

VM ENVIRONMENT MONITORING

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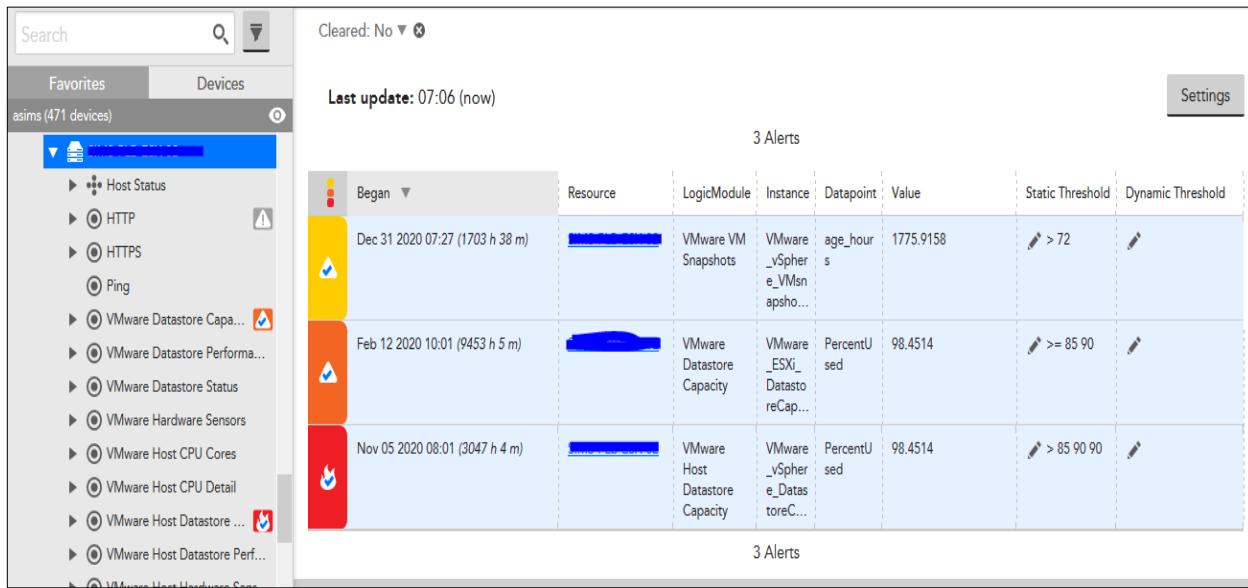


Figure 13: Smart IMS VM Monitoring Screen

PHYSICAL SERVER MONITORING

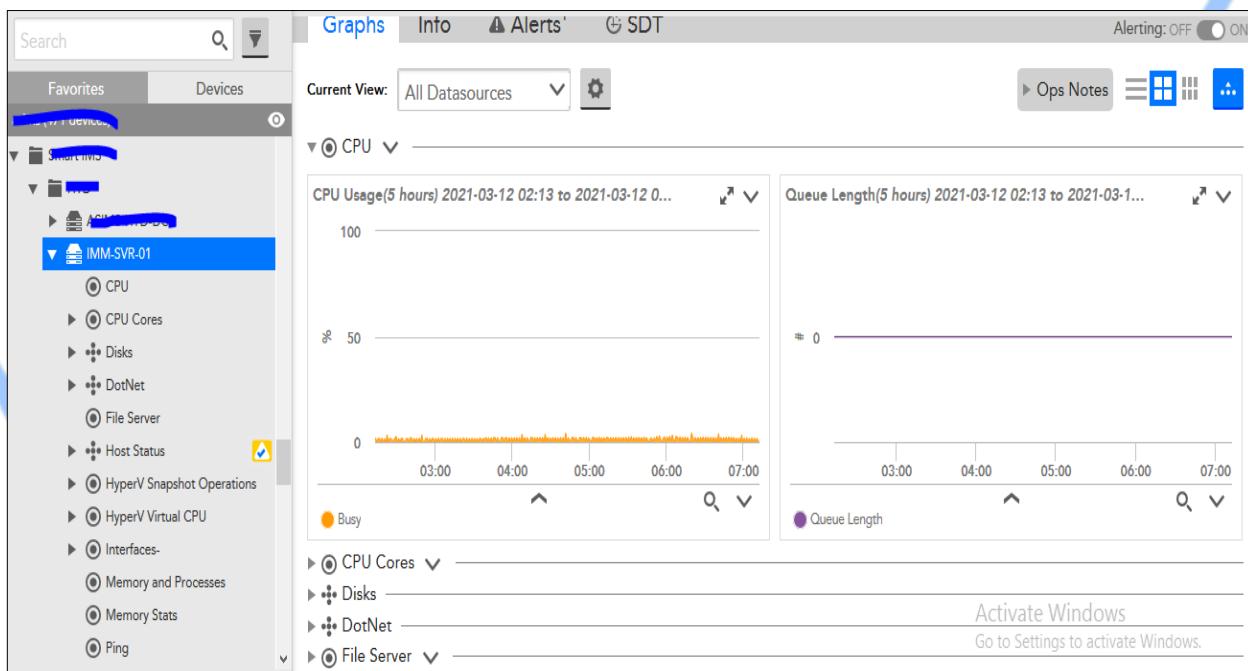


Figure 14: Physical Server Monitoring Screen

MULTI CLOUD MONITORING

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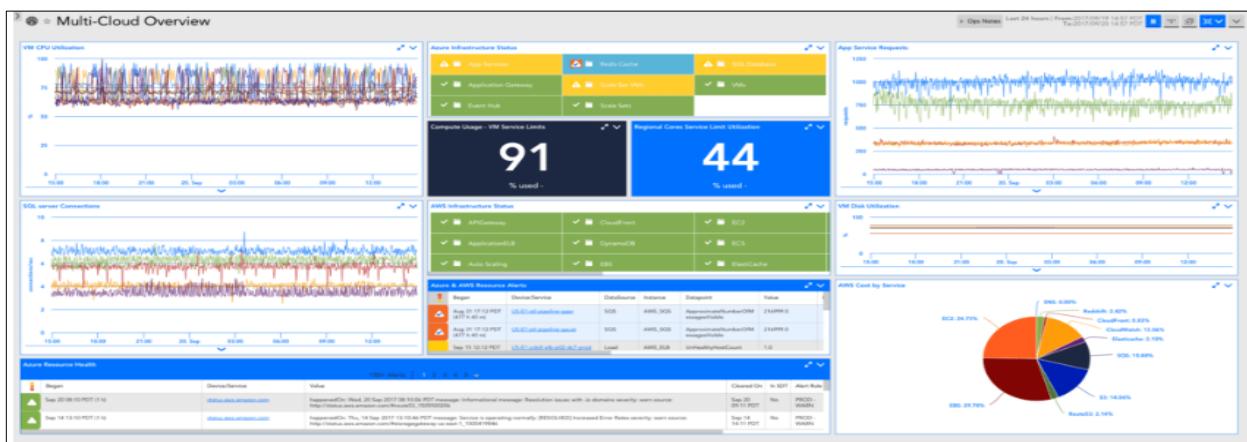


Figure 15: Smart IMS Multi-Cloud Monitoring Screen

SERVICE LEVEL MONITORING

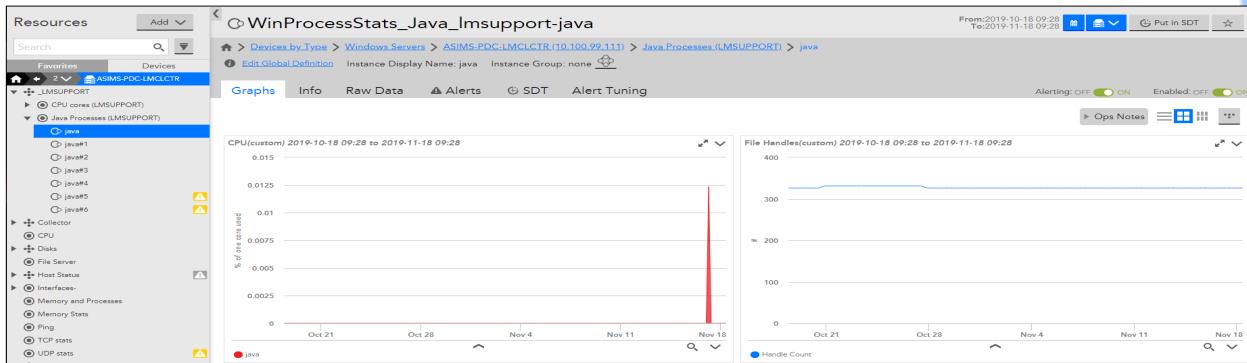


Figure 16: Smart IMS Service Level Monitoring Screen

- b) Proactively monitor and resolve server issues including, but not limited to, performance, disk space issues, patch status, server security.**

The Smart IMS team will monitor the API environment proactively 24 X 7 X 365. Smart IMS will utilize automated monitoring tools and alerts when certain thresholds are exceeded for key metrics like CPU usage, memory usage, long-running jobs, invalid objects, Uptime/Downtime details, Ping Response time details, Traceroute details, Bandwidth Utilization, etc.

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Figure 17: Smart IMS Proactive Monitoring Approach

Monitoring	Diagnostics	Reporting
 <ul style="list-style-type: none"> • Dashboards & Alerts • Data Backup Environment • Watch Global Environment • Patch Environment • Display key health indicators • Inspect Infrastructure Health • Connect to Servers & Infrastructure 	 <ul style="list-style-type: none"> • Real-time Troubleshooting • Investigate User Sessions • Examine In-Progress Sessions • Evaluate Network Segments • Inspect Backup and Patch Status 	 <ul style="list-style-type: none"> • Historical Analysis • Track Organizational Patterns • Visualize Adoption & Usage • Identify Top User Behaviors • Analyze Service Level & Performance Metrics

Figure 18: Smart IMS Proactive Monitoring Process

API CURRENT CHALLENGES:

- **Monitoring and Controls:** We understand that API's current challenges are to monitor, support their systems and networks. To help API to solve the current challenges we have identified the areas of

support required and can be accomplished through our AVATAR monitoring tool. The Capabilities of AVATAR monitoring tools are described in **Section: 5 (J)**.

Completing/optimizing migration to cloud & Cyber Security:

- Constant cost optimization on your cloud journey. We give you the strategy and roadmap to define, plan and implement logical steps on your cloud journey. We do so by examining the current and future states of your business needs and IT infrastructure.
- Assess the ground realities to implement ever-lasting value with a proven framework to design your cost-optimized journey.
- Deliver transformation with a fail-safe framework to evaluate cloud infrastructure even as business needs and workloads evolve.
- Power ahead with a comprehensive set of best practices to architect your next-gen systems and capabilities on the cloud.
- You need a plan of action perfected with clarity to deliver cloud optimization that cuts across from the core to the edge of the cloud. With SIMS you will never run blindfolded as we bring you the precise roadmap laid out using the best cloud cost optimization tools and strategies.
- Assesses all operational and integration risks.
- Identifies security and regulatory, compliance and policy implications.
- Analyzes benefits, risks, and costs of cloud computing alternatives.
- Calculates macro-ROI and IT financials
- SIMS A highly automated “migration factory” approach with the right talent and tried and tested cloud cost optimizations tools - This is how you eliminate delays and deliver quality results, on time, every time.
- No more wasting time on cybersecurity deployments
- Industry’s best security and compliance knowledge in various geographies and across industries such as Banking, Insurance, Military, Manufacturing, Healthcare, Aviation, and Retail. Visibility spanning the entire organization.
- Real-time monitoring, event analysis of day-to-day activity with visibility over Perimeter, Networks, Hosts, Applications, and most importantly Data.
- Lower dependency on IT resources for manual tasks
- Delivering end-to-end automation through hyper automation and help enterprises enhance productivity, enhance accuracy, achieve compliance, and achieve ROI.

c) Provide full Lifecycle Management for server hardware

We have trained engineers who understand, support Server hardware. Our Engineers will track, monitor the server inventory which covers replacement of failed hardware, new hardware purchases, imaging and implementing the server configuration, secure destruction of the server.

We have experience in one of our current projects (HRW) where we support the up-gradation of server hardware, failed parts replacement, new server implementation, imaging, etc.

d) Installation and configuration of operating system and software for servers. Firmware updates, OS, and Application Patching for servers

Please Refer Section 3: Service Desk support For Office, executive and VIP Personnel, h Point

- e) Monitor server performance and make scaling/sizing recommendations as appropriate.**
- Smart IMS will perform continuous monitoring on the server infrastructure for performance issues like disk space, high memory utilization, up/ down status, etc. to ensure the high availability of the servers using the monitoring tool.
- Our experience with few customers will prove successful in monitoring the servers and making recommendations on capacity management (scaling, sizing) of the server infrastructure either in data centers or hosted on Microsoft Azure.
- f) Adhere to API Change control processes and procedures. All change management activity will be tracked and managed in Provance.**

CHANGE MANAGEMENT:

All IT changes within the company will be documented and managed in the API's ITSM tool, Provance. To achieve this, the change management process includes the following primary steps:

- Formally Request a Change.
- Categorize and Prioritize the Change.
- Analyze and Justify the Change.
- Approve and Schedule the Change.
- Plan and Complete the Implementation of the Change.
- Post-Implementation Review.

g) Maintain DR plans and perform Datacenter failover testing, annually at a minimum

Smart IMS will ensure to manage, maintain DR plans, and testing the DR is the key for the management of the infrastructure either it is data center, on-prem, or cloud.

Smart IMS will ensure to follow the data center failover testing methodologies and make sure to perform testing at least once annually or in the period in which API and Smart IMS have mutually agreed upon.

DISASTER RECOVERY APPROACH:

Smart IMS proposes the following three Disaster Recovery (DR) sequential phases:

- **Activation Phase:** In this phase, the disaster effects are assessed and announced.
 - Smart IMS will be responsible for launching the activation phase. Our team will be well informed about the geographical, political, social, and environmental events that may pose threats to the API's business operations. It will have trusted information sources in the different agencies to forestall false alarms or overreactions to hoaxes.
- **Execution Phase:** In this phase, the actual procedures to recover each of the disaster-affected entities are executed. Business operations are restored on the recovery system.
 - Recovery operations start just after the disaster recovery plan has been activated, appropriate operations staff have been notified, and appropriate teams have been mobilized. The activities of this phase focus on bringing up the disaster recovery system. Depending on the recovery strategies defined in the plan, these functions could include temporary manual processing, recovery, and operation on an alternate system or relocation and recovery at an alternate site

- **Reconstitution Phase:** In this phase, the original system is restored, and execution phase procedures are stopped.
 - In the reconstitution phase, operations will be transferred back to the original facility once it is free from the disaster aftereffects, and execution-phase activities are subsequently shut down. If the original system or facility is unrecoverable, this phase also involves rebuilding. Hence the reconstitution phase may last for a few days to few weeks or even months, depending on the severity of destruction and the site's fitness for restoration. As soon as the facility, whether repaired or replaced, can support its normal operations, the services may be moved back. The execution team will continue to be engaged until the restoration and testing are complete. The following major activities occur in this phase:
 - Continuously monitor the site or facility's fitness for reoccupation Verify that the site is free from aftereffects of the disaster and that there are no further threats
 - Ensure that all needed infrastructure services, such as power, water, telecommunications, security, environmental controls, office equipment, and supplies, are operational
 - Install system hardware, software, and firmware
 - Establish connectivity between internal and external systems
 - Test system operations to ensure full functionality
 - Shut down the contingency system
 - Terminate contingency operations
 - Secure, remove and relocate all sensitive materials at the contingency site
 - Arrange for operations staff to return to the original facility

h) Monitor for and escalate any security incidents to API Cybersecurity Lead. Assist cybersecurity firms (as engaged) in incident response if necessary. Examples of security incidents include, but are not limited to:

- I. Computer system breach
- II. Unauthorized access to, or use of, Systems, software, or data
- III. Loss of theft of equipment storing institutional data
- IV. Denial of service attack
- V. Interference with the intended use of IT resources
- VI. Compromised user accounts

Smart IMS will monitor the security incidents through available monitoring tools wherever required or on the portals of Microsoft, Endpoint Security systems, Applications that help in monitoring the security incidents on breach of policies, etc. as per API requirements.

Once our engineers understand the alert after collecting proper information will escalate it accordingly to the API Cybersecurity Lead to further investigate and resolute.

We have supported few customers (HRW) in this area where consistent monitoring of the security alerts and escalating has helped avoid major attacks. Some endpoints have been affected by malware and Smart IMS coordinated with the Security team to analyze, address the issue on time.

APPROACH FOR MONITORING SECURITY INCIDENTS:

Networks, computers, internet usage, and email usage may be monitored by members of the Networks, Systems, and Information Security teams within IT Services or third parties contracted on behalf of IT

Services, and usage logged. In the event of alerts, the Smart IMS engineer will report to the API Cyber Security Lead.

Smart IMS' networks, computers, internet usage, and email usage may be monitored and logged for all lawful purposes including:

- Tracking the flow of network traffic
- Facilitating and improving capacity planning
- Identifying areas for improvement, including the provision of teaching and learning facilities
- Maintaining good availability of network bandwidth
- Ensuring the use of resources is authorized
- Management of systems
- Protecting against unauthorized access
- Ensuring system security
- Avoiding or mitigating legal liabilities and complying with legal obligations
- Preventing and detecting crime Monitoring will include active attacks by users authorized by the SIMS to test or verify the security of its systems.

i) Perform root cause analysis for significant and/or frequent issues/outages along with remediation follow-up to reduce or eliminate the possibility for recurrence.

Root cause analysis is the major document in identifying the issues across the environment and if there are multiple occurrences of the issues, Smart IMS will ensure to have the remediation follow-ups with the providers, vendors, engineers to understand the exact cause and how it can be remediated.

RCA helps pinpoint contributing factors to a problem or event

RCA helps organizations avoid the tendency to single out one factor to arrive at the most expedient (but generally incomplete) resolution. It also helps to avoid treating symptoms rather than true, underlying problems that contribute to a problem or event. While RCA is used in a generic sense, there is an implication that a methodology is used in the analysis.

Goals

The primary goal of using RCA is to analyze problems or events to identify:

- What happened
- How it happened
- Why it happened...so that actions for preventing reoccurrence are developed

Benefits

Implementing RCA will help the Customer:

- Identify barriers and the causes of problems, so that permanent solutions can be found.
- Develop a logical approach to problem-solving, using data that already exists in the agency.
- Identify current and future needs for organizational improvement.
- Establish repeatable, step-by-step processes, in which one process can confirm the results of another.

SECTION 5: PROVIDE 24X7X365 MONITORING & SUPPORT OF IT SYSTEMS AND INFRASTRUCTURE

Core components of API's infrastructure are currently located on-premise and in Microsoft Azure. API expects the MSP to monitor and support these environments on a 24x7x365 basis. Bidders are encouraged to highlight their Azure management experience and expertise in general as well as describe their ability to deliver on the following requirements:

Smart IMS will monitor and support the Infrastructure environment using Our AVATAR monitoring system or API-provided monitoring tool 24X7X365 basis. **Refer to Section 4 for more details.**

OUR AZURE MONITORING CAPABILITY:

Azure Monitor: We collect & monitor telemetry from a variety of on-premises and Azure sources by using Management tools, such as those in Azure Security Center and Azure Automation, also push log data to Azure Monitor. The service aggregates and stores this telemetry in a log data store that's optimized for cost and performance.

- Pro-active and Preventive Maintenance and plans from Infra till Application layer
- Service Improvement plans across all the areas (OS, Network, Database & Applications)
- Pro-active monitoring of the Alerts and taking immediate action to reduce the downtimes
- Fine-tuning of alert metrics, by reducing recurring alerts, post permanent fixes
- Few examples that we do on the monitoring front.
- Monitor and alert on metrics
- Analyze logs
- Azure VMs in Log Analytics
- Linux VMs in Log Analytics
- Windows VMs in Log Analytics
- Alert on Subscription events

AZURE COST OPTIMIZATION CAPABILITY:

Cloud cost optimization is one of the prime concerns of virtualization and cloud transformation of workloads and infrastructure. Smart IMS has a well-established Microsoft Practice that includes Microsoft Dynamics, PowerApps, and Azure Cloud capability having a team of experts that will be available to help API to achieve the best outcomes at the lowest possible cost without compromising on functional requirements & security. We follow the Azure advisor best-practice recommendation for cost-saving and optimization. Our team reviews the workload architecture for cost optimization. We use the best practices and Azure's well-architected Cloud adoption framework to come up with the best recommendation. There are certain ways to optimize the Azure cost:

- Select the right compute service for the applications.
- Create and manage the budget for the Azure services
- Save by dynamically allocating and deallocating resources to match your performance need.
- Identify idle virtual machines and get the recommendation to shut them down.
- Identify underutilized resources to reconfigure or consolidate.
- Take advantage of the Azure hybrid benefit.

- a) ***Generate, update, and maintain documentation relating to service configurations, network architecture, security parameters as well as procedures for common IT tasks in the environment.***

DOCUMENTATION:

Regarding documentation, Smart IMS will prepare and deliver the relevant documents that include but are not limited to the project plan, ticket solution document, Root Cause Analysis (RCA) document, user guide(s), manuals, standard operating procedures (SOPs), and configuration management document(s).

Smart IMS will record information on the health of the API's technical environment including the overall status of all servers, DBs, OSs, tools, processes, and services. Besides, Smart IMS will provide advice on proactive actions that the API must take to ensure smooth functioning and scalability of their infrastructure, to manage their business seamlessly. Smart IMS will also provide reports and alerts on events including outages, failures, security issues, etc.

Smart IMS will also include periodic reporting on support services, tickets' status, and other status reporting; to assess vendor performance on the support services.

- b) ***Installation and configuration of operating system and software, where applicable, for network and UC hardware and devices. Firmware updates, and software patching for network and UC hardware and devices.***

Please Refer Section 3: Service Desk support For Office, executive and VIP Personnel, h Point

Our Engineers understand the installation, configuration of Operating systems, software for the network / UC devices. We shall use the standard set of tools to perform the activities.

Firmware Update, Software Patching:

Our Engineers have the ability to update the firmware, software patches of the network / UC devices as per the defined standard policies of API. Network Configuration managers from providers like Manage engine network manager or engineers download the patches manually from the provider's website and update them by logging into each device.

- c) ***Monitor and respond to alerts for all network devices/systems on a 24x7x365 basis.***

SIMS will use a standard suite of tools to provide monitoring, alerting & reporting services, for the monitored systems (Network, UC, Workstations, Servers, Application, and Databases).

Smart IMS will monitor, and support Infrastructure in AVATAR monitoring system or API provided monitoring tool 24X7X365 basis. **Refer to Section 4 for more details**

- d) ***Monitor internet connectivity at each location. Escalate issues to managed voice/data provider as appropriate (Verizon). Coordinate with managed voice/data network provider as necessary for service add/change/moves.***

The Smart IMS team will proactively monitor ISP link uptime and response time. Our proposed Engineer will do initial triage (ping, traceroute, etc.). If Engineer will observe anything not running as expected, he will open a ticket with ISP on high priority and coordinate with the provider for any service requests that require add/change or movement of the current voice/data networks. Also, the Engineer will follow up on the issue until closure and make sure that the ISP link should be up all the time with an accurate response time.

Our prior experience will help API to monitor the internet connectivity effectively and our approach to following up with ISP for any link issues/outages and request for an RCA (Root Cause Analysis) document to understand the issue completely and avoid recurrence has proved to be successful for most customers.

Our experience in one of the current projects (HRW, IRC) to monitor the internet connections across the world through the portals provided by the internet service providers. Engineers monitor the traffic in, out, response times, ping status of the internet links, and determine the status of the links. If found to be alerting, a ticket will be raised immediately to the provider to track, follow up, close, and communicate accordingly to all stakeholders.

e) Configure, monitor, and manage wireless networks, access points, and Wi-Fi security (Meraki and/or Versa based solution)

Smart IMS will ensure to use portals for Meraki / Versa to configure and manage the environment for wireless networks and security.

For Monitoring Smart IMS will use our AVATAR monitoring or API-provided monitoring tool for looking at uptime, downtime, ping status check, etc.

Smart IMS will monitor, and support Infrastructure in AVATAR monitoring system or API provided monitoring tool 24X7X365 basis. **Refer to Section 4 for more details.**

f) Configure, monitor, manage and routinely test server backups in accordance with Recovery Point Objective/Recovery Time Objective (RPO/RTO) requirements.

Smart IMS will use API-provided backup tools to configure, manage, monitor the backups as per the configured backup schedules.

Our Engineers will ensure to perform the test of the backups as per API business requirements in line with RPO / RTO requirements of API.

Our prior experience in backups helps us manage, monitor, configure the backups in different environments like physical, virtual, cloud-based backups. We monitor this backup as per the schedule and work on remediation of the backups as per the alerts generated on the backup portals. We perform the complete backup testing as per customer requirements. For few customers, we are testing monthly, quarterly, half-yearly. Also, we provide ad-hoc testing as per customer business requirements.

We have expertise in applications and database backups in a real-time environment, we perform database backups as per business requirement or ad-hoc basis which includes

- Database Full backup (Daily/Weekly/Biweekly)
- Incremental backup (Daily)
- Differential backup (Daily)
- Transaction backup (Every 15 Min/ 30 Min etc.)
- Log backups (Daily)
- Snapshot backup (Daily)

We scheduled these backups as per API business requirements and verify the full backup cycle by restoring it periodically. All the data that is being backed up can be stored in different media like Tape drives, SAN, Cloud storage, etc.

RTO set for one of our current projects is 8-24 Hours to be back up and running whenever a service disruption happens whereas RPO is set for 24 hours.

The RTO mentioned above is as per the standard approach any requirement from API to update / change can be mutually agreed up and implemented accordingly.

Our expertise in few backup tools include

Backup Tools

- Veeam Backup and Replication
- Symantec Backup Exec
- Carbonite Cloud Backup
- Windows Native Backup
- MozyPro Cloud Backup

g) Monitor, support, and manage API's unified communication platform (Cisco UC).

Smart IMS will ensure to support, manage API's unified communication platform (Cisco UC) through the console's provided by the device.

For monitoring the Cisco UC environments, the AVATAR monitoring system or API-provided monitoring tool will be used for a 24X7X365 basis. **Refer to Section 4 for more details.**

APPROACH FOR MONITORING UC ENVIRONMENT:

Unified Communications Management Platform (UCMP) provides complete, real-time visibility across complex, multi-vendor applications, network and endpoint domains, network, and endpoint domains for all Cisco controlled environments.

Unlike other vendors, AVATAR or API-provided monitoring tool shows how the network is affecting calls via "single pane of glass" "multi-site "multi-location" centralized management view that can support hundreds of thousands of users worldwide.

h) Perform Security Management functions, to include:

- i. **Network/system access management - Assignment of user permissions via Active Directory, assignment of permissions,**
- ii. **Ensure log monitoring software for cybersecurity vendors is installed.**
- iii. **Antivirus/Endpoint protection monitoring and updating.**
- iv. **Configure and enforce Endpoint Protection and encryption (e.g., Cylance, Absolute, Bitlocker)**

Smart IMS Approach for monitoring security incidents is defined in Section 4: Provide 24x7x365 monitoring and support for Data Centers, h point

Smart IMS will ensure to support API in its Security Management functions which include network/system access provision, custom permissions, installation of log monitoring software as per pre-defined API policies.

Smart IMS Engineer will have a constant eye on monitoring the security incidents related to Antivirus / Endpoint protection and will plan to deploy the latest updates as and when the provider releases the patches.

Smart IMS Engineer will ensure to configure, enforce the encryption and endpoint protection from the initial stages of deployment as engineers are involved since onboarding, reimaging stages.

Our experience with few customers in the past has the positive effect on the engineers who understand the security management which involves encrypting the endpoints through Bit locker and storing the keys in bit locker server, configuration, maintenance, and monitoring of endpoint/antivirus has been the top priority for few of customers to avoid the security threats which are targeted towards their confidential data.

i) Perform root cause analysis for significant and/or frequent issues/outages along with remediation follow-up to reduce or eliminate the possibility for recurrence.

Please refer to Section 4 point I

- j) *Monitor infrastructure components across the organization (switches, firewalls) and respond to issues including, but not limited to: abnormal interface utilization, interface up/down status changes, high CPU utilization, high memory utilization, interface packet errors/discards/retransmits.*

INCIDENT MONITORING & MANAGEMENT

The primary goal of Smart IMS's Incident Management team is to restore normal service operations as quickly as possible to minimize the adverse impact on business operations. They ensure that the best possible levels of service quality and availability are maintained. 'Normal service operation' is defined here as service operation within the Service Level Agreement (SLA) limits.

The Customer can report any incidents or faults on the system as service requests. The customer can create a service request, call the NOC, or send an email to the NOC (to create a service request on behalf of the customer). The service requests can be viewed in the web portal.

Multiple levels of support are included in the incident management processes. Statuses of the incidents are regularly updated on the portal. Detailed descriptions of the incident's cause, effect, and resolution are updated for each incident. A detailed RCA is posted for all major incidents.

Some of the activities undertaken in Incident Monitoring are:

- Proactive and reactive monitoring of all managed devices on a (24x7x365) basis
 - Recording basic Incident details
 - Assigning impact and urgency, thereby defining priority
 - Classification and initial support for the incident
 - Create a ticket
 - Notify/Escalate the incident

Smart IMS will setup client applications 'probes' at the customer data center. The probes will discover all the network assets present in the environment. The probes will periodically collect the monitored data and send it back to the central server through a secure HTTPS connection. The centralized server will collect all the data and provide a dashboard view of the performance, status, and health of the servers.

Custom alerts and triggers can be created, and it also provides the option of alert escalations and de-escalations. Alerts can be created based on monitored processes, services, or applications running on a specific OS. The alerts can also be viewed through service desk integration. Alerts can be configured to be generated only after a certain polling interval has elapsed or after a specific sequence of events occurs or immediately after one of the monitored attributes fails.

REMOTE INSTALLATION

The NOC will associate an IP address and set up a VPN tunnel between the box and the NOC. The NOC engineers would access the device and start the configuration process. The configuration process would then be validated by the SDM and the customer agent before rolling it outlive

Smart IMS remote network monitoring & management services are based on standard ITIL practices enabling us to provide superior support services to our customers. Smart IMS NOC (Network Operations Center) can remotely monitor and manage API LAN/WAN, Servers & applications across the globe,

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24x7x365. Our NOCs are setup in geo-redundant locations with high-speed internet leased line connectivity and with complete failover capability in case of any geopolitical emergencies.

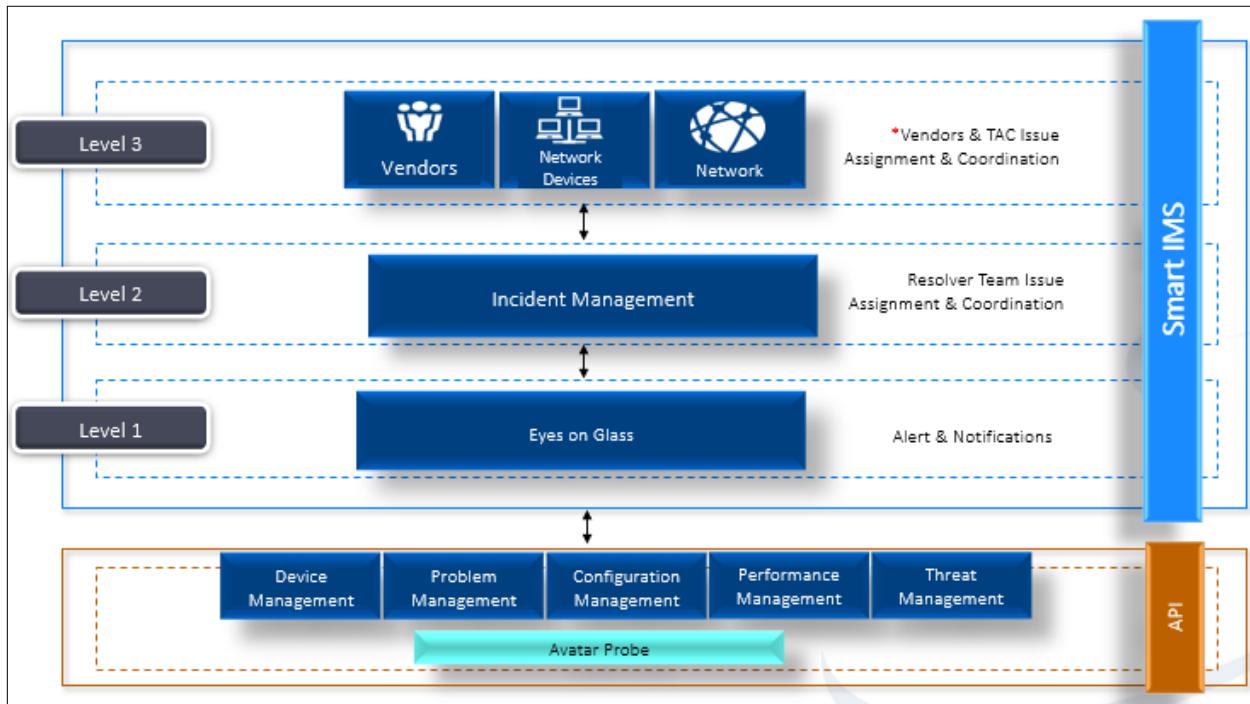


Figure 19: Smart IMS Monitoring Approach

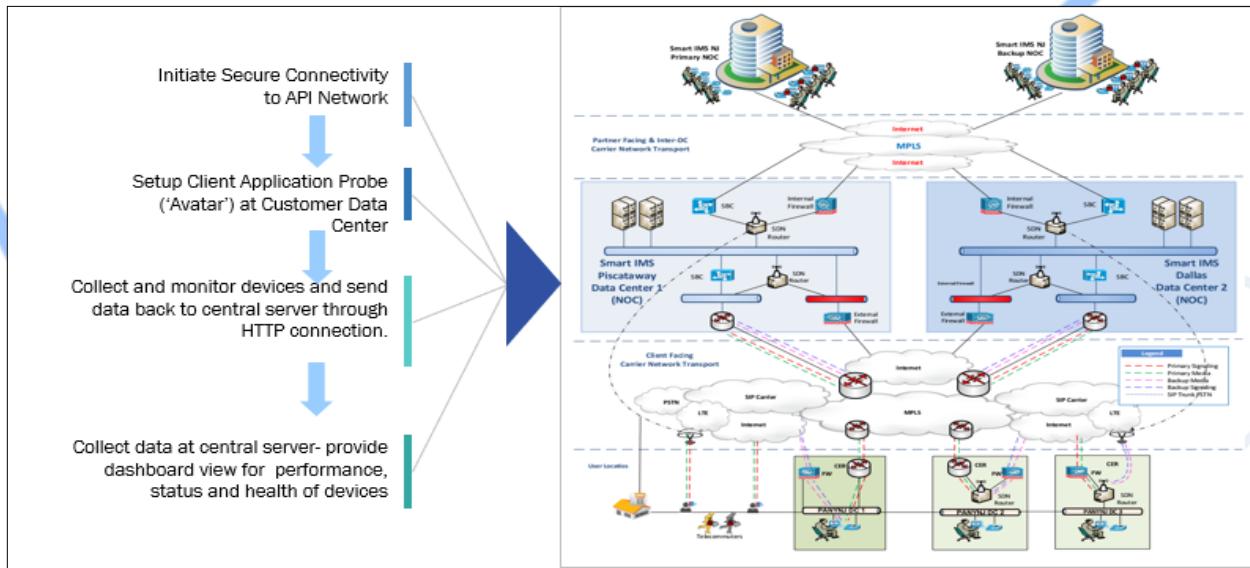


Figure 20: Smart IMS Data Collection Methodology, Probes, and Network Set-up for Monitoring

k) Ensure MSP activities do not violate PCI compliance for IT environments associated with credit card processing; including, but not limited to, change control processes and approvals, data encryption, traffic segregation, and device compliance requirements.

Smart IMS understands the importance of data in API environment and will make sure to follow required security standards for data security which includes data encryption, traffic flow, monitoring device compliance status, monitoring DLP policies, setting up alerts on all levels to safeguard information related and in line with PCI compliance standards.

l) Coordinate and work with existing Cyber Security providers (Avertium, Blackpoint) as necessary.

Smart IMS will work hand in hand with the Cyber Security providers taking inputs/information from the Cyber Security Lead wherever required to collect as much information as possible.

Engineers have insight into the security incidents as they are involved in performing security monitoring, operations which will help them in working closely with the providers.

m) Coordinate with Audio Visual (A/V) Managed service provider (Corbett Technology Solutions) to support conference room equipment.

Our Engineers understand the conference room environment and what is required to support the equipment. In case there are any issues found after performing initial triaging engineers will ensure to see how this can be resolved with support from the AV Managed service provider and ensure to get the support in solving the issues, replacement of the equipment as per defined policies, and business requirements.

Our experience with few customers in supporting the AV conference rooms will help the engineers in supporting the API requirements. For one of the customers, there were conference rooms across the globe, and engineers coordinated with the providers to get support, replacement of the cameras, AV equipment as and when required to timely resolve the issues.

n) Adhere to API Change control processes and procedures. All change management activity will be tracked and managed in Provance.

Smart IMS Change Management Process is defined in **Section 4: Provide 24x7x365 Monitoring and Support for Data centers, f point**

TOOL REQUIREMENT:

The Smart IMS will use a standard suite of tools to provide monitoring, alerting & reporting services, for the monitored systems (Network, UC, Workstations, Servers, Websites, Application, and Databases).

Tools	Functionality	Hardware	Software	Services
*AVATAR	Monitoring and Alert Management	Probe	Windows/Linux	SNMP, WMI, etc.
*Provance	Inventory management	Cloud	NA	NA
*Goto Assist	Remote tool	Cloud	OS Specific	NA
WSUS	Patching - updates	On Premise / Hardware	NA	NA

*API will procure the required tools /software and coordinate with the respective vendor. The Smart IMS team will assist the API / Vendor team to configure the tools according to the API's requirement.

To configure Avatar, Smart IMS will need a probe (Hardware) in the API network which will collect data within the network and push it to the tool

3. SECTION 6: SUPPORT OTHER IT PROJECTS

Smart IMS has the capability to fulfill the following requirements:

Ability to Support the environment for Future Projects	
Zero-Touch Deployment via Microsoft Endpoint Manager (InTune)	Y
Migration from Cisco-based phone solution to a virtual voice solution, such as Microsoft Teams.	Y
Migrate from legacy Cisco edge infrastructure to Versa SD Wan managed solution (provided by Verizon)	Y
Reduce service footprint at existing Co-Location environment by migrating services to cloud-based (Azure) solution.	Y

Smart IMS has the capability of Zero-Touch Deployment, migration of Cisco phones to virtual voice solutions, and migrating services to SD-WAN and Cloud. In past, we have delivered large projects driven from our global locations in India and the USA.

Migration from Cisco-based phone solution to a virtual voice solution, such as Microsoft Teams.

OUR SOLUTION APPROACH AND APPROACH BENEFITS

Smart IMS provides Direct Routing with Teams via global geo-redundant UC Nodes. UC Nodes are in EMEA, ASIA, North and Latin America aligned with Microsoft data centers. Smart IMS provides direct internet peering between High Availability SBC's and Customer Teams Tenant with number porting and new numbers supported.

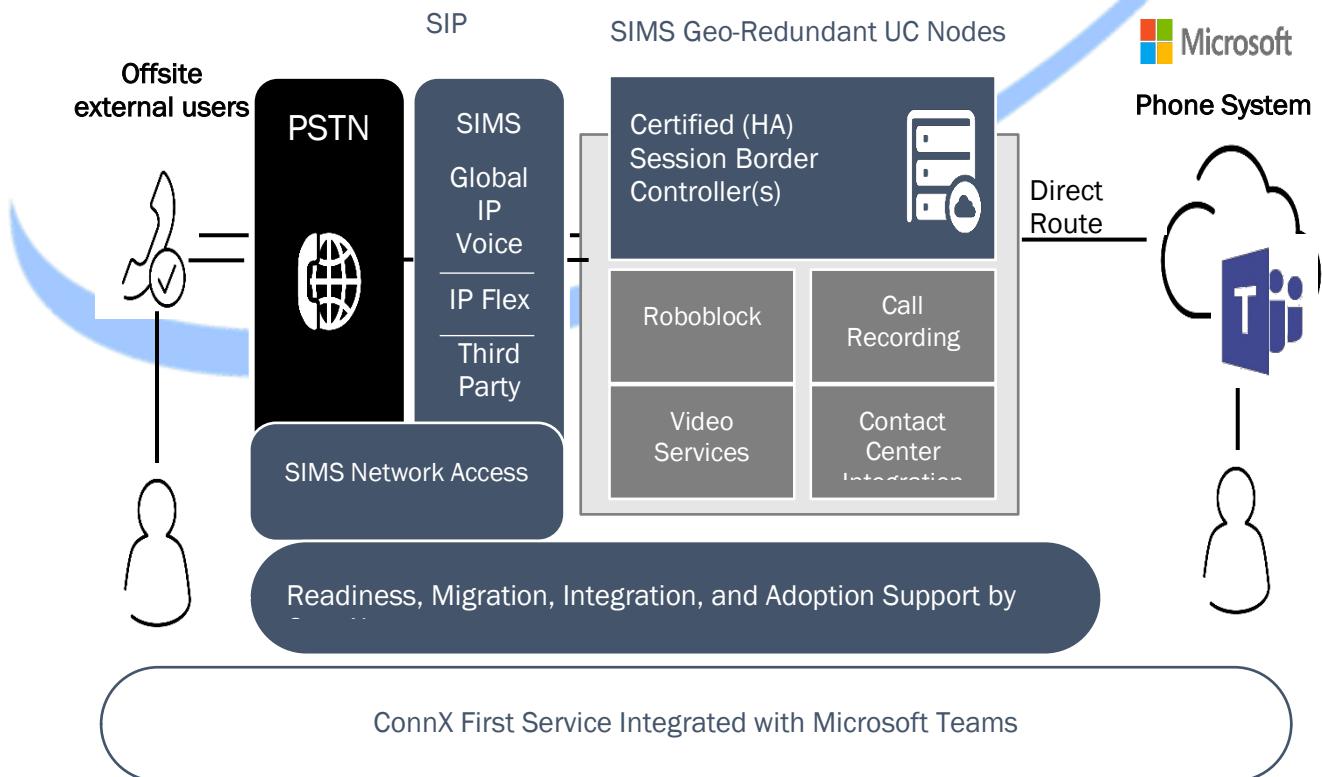


Figure 21: Smart IMS Solution Approach

Approach Benefits

- Geo-Redundant UC Nodes reduces call latency and increases availability
- Global Centralized SIP PSTN access and Session Border Control
- Pre-established direct peering with Microsoft data centers
- Integration with legacy PBX Platforms. Integrate to Migrate Approach
- Local Gateway/SBC Support When Required Local Regulatory Requirements
- Microsoft Direct Route Support
- Network access via MPLS, Internet, and SDWAN supported
- Global Dial Plan Support
- Global 7X24 Monitoring and Management.

IMPLEMENTATION AND MIGRATION APPROACH:

Base Strategy & Starter Engagements (Phase 1)	Initial Kickoff	Information Capture and Review	Teams Integration & Migration Strategy
	<ul style="list-style-type: none"> • Contracting • Staff assignment and introductions • Project plan and project time line development • RACI matrix creation • Customer Service Manual creation 	<ul style="list-style-type: none"> • Information Capture • Joint review • Dial Plan review • Number Porting and New Number development • Site Audits and assessment 	<ul style="list-style-type: none"> • User Persona development • Network access design • Migration plan development and review • Test plan development and review • Pilot test group development
Implementation And Migration (Phase 2)	Direct Route Establishment	User Number Porting /New Number Assignment	ConnX Support Establishment
	<ul style="list-style-type: none"> • Establish Direct Route ConnX SBC to Teams • Load SBC dial plan • Test with Pilot group 	<ul style="list-style-type: none"> • Define groups to be migrated • Define time lines for each group • Setup new number or porting dates for users • Schedule migration , test and turn up • Premise SBC and analog gateway installation 	<ul style="list-style-type: none"> • Setup monitoring and management • Setup reporting • Define escalation process • Train customer staff on admin portal • Setup ebond
Steady State Support	Service Management	Lead Technical Architect	Specialized SME Support
	<ul style="list-style-type: none"> • Establish recurring monthly service reviews • Establish Quarterly review • Network Capacity review 	<ul style="list-style-type: none"> • Review new applications implementation • Service enhancement review • Upgrades and patch timeline review and implementation 	<ul style="list-style-type: none"> • Client needs Network, Contact Center and/or Security expertise. • Advanced Emergency Services Design and implementation support

Figure 22: Smart IMS Implementation and Migration Approach

Network, Voice, Migration to MS-Teams

Migrate from legacy Cisco edge infrastructure to Versa SD Wan managed solution (provided by Verizon)

Smart IMS has experience in SDWAN implementations/ Migrations in one of the biggest Auto parts industry (**Advanced Auto Parts**) where **SDWAN implementation was done for over 4000 locations which is so far the largest implementation/migration in less than a year.**

- Industry-first Integrated SD-WAN with Unified Communication migration

“Only SD-WAN Solution which got rolled out at 4000 locations in less than a year”

- In house Architect, Design, Project Management, Automation, and Day 2 Management capability
- More than 100+ Qualified Staff on SD-WAN solutions
- Unique SD-WAN capabilities
 - Session Smart SD-WAN

- Session Migration-
- Overhead reduction and optimal usage-
- Session Optimization-
- Remote & Failover connectivity
- Device Footprints

Fully Redundant Centralized DC / DR Infrastructure

- 8,000 Routers
- 50,000 Phones
- 4,000 Voice Gateways

MIGRATION APPROACH:

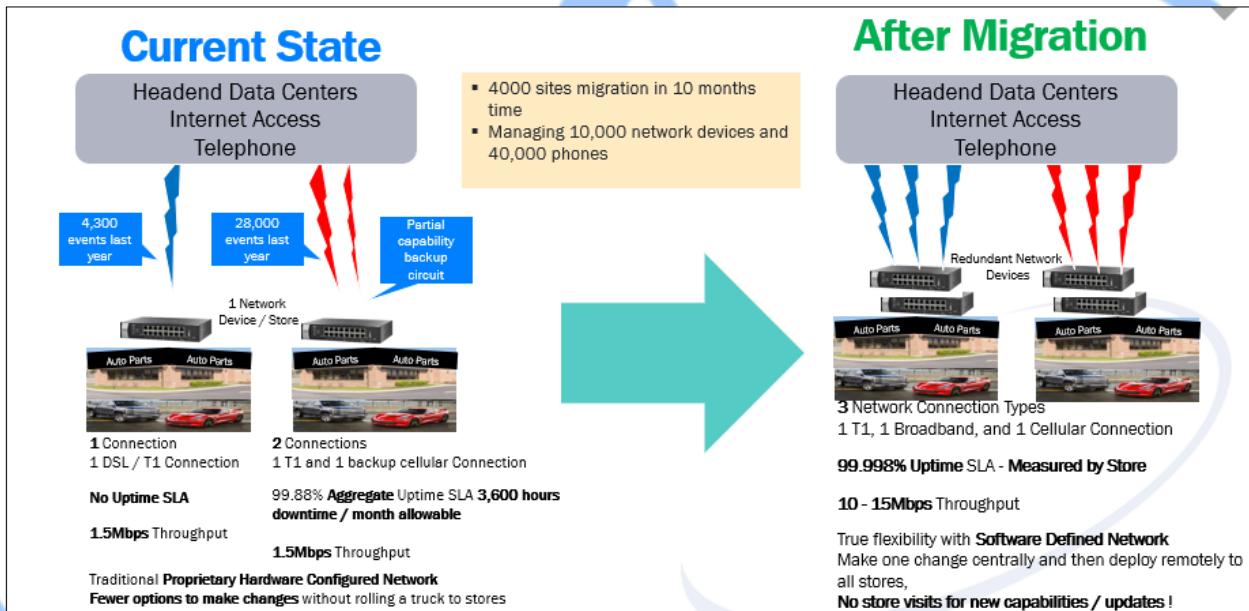


Figure 23: Smart IMS Migration Approach

Reduce service footprint at existing Co-Location environment by migrating services to cloud-based (Azure) solution.

We migrate services and workload to the cloud to optimize the cost and full utilization of the resources. Our approach to cloud migration is base on the following delivery matrices:

We give you the strategy and roadmap to define, plan and implement logical steps on your cloud journey. We do so by examining the current and future states of your business needs and IT infrastructure. We assess the ground realities to implement ever-lasting value with a proven framework to design your cost-optimized journey.

Smart IMS proposal | IT Managed Services

American Petroleum Institute

Smart IMS delivers transformation with a fail-safe framework to evaluate cloud infrastructure even as business needs and workloads evolve. We use Azure best practices to architect your next-gen systems and capabilities on the cloud.

Our recommendation is perfected with clarity to deliver cloud optimization that cuts across from the core to the edge of the cloud. With SIMS you will never run blindfolded as we bring you the precise roadmap laid out using the best cloud cost optimization tools and strategies.

- Assesses all operational and integration risks.
- Identifies security and regulatory, compliance and policy implications.
- Analyzes benefits, risks, and costs of cloud computing alternatives.
- Calculates macro-ROI and IT financials

SMART IMS CLOUD MIGRATION APPROACH:

Smart IMS follows a highly automated “migration factory” approach with the right talent and tried and tested cloud cost optimizations tools - This is how you eliminate delays and deliver quality results, on time, every time

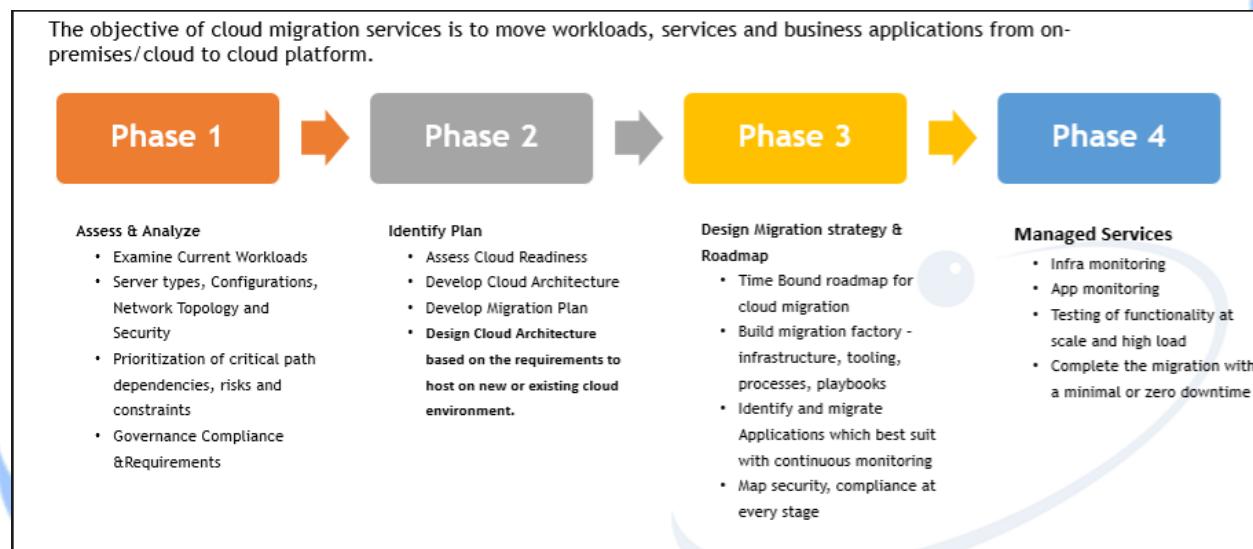


Figure 24: Smart IMS Cloud Migration Approach

4. SECTION 7: OTHER INFORMATION

Following are the assumptions laid out in providing the solution

KEY ASSUMPTIONS:

- Each site Design, the architecture of devices will be handled by API's IT team.
- License for systems, will be managed and handled by API.
- API is using licensed software's.'
- API will provide access to all the monitoring tools currently in use if any.
- API will ensure the availability of all the key personnel and a Single Point of Contact for the Project implementation throughout the project duration as per the plan.
- API will provide requisite training sessions on systems, domain & processes to the Smart IMS engineers to help understand the environment better.
- During the transition phase, API will provide workspace and IT resources to the Smart IMS transition team working at their location.
- The customer will identify relevant reviewers of Policies, Processes, and Forms, etc.
- The process for communication, clarifications, etc. will be defined and mutually agreed upon before the commencement of the contract
- The escalation Process is to be outlined with the agreement before project execution starts.
- API will respond to the queries raised by the Smart IMS team as per the communication model agreed before the start of the Contract.
- API will provide all the relevant functional processes and documents of the existing system, at the commencement of the contract and will be made available to Smart IMS.

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5. ANNEXURE – I: API COST PROPOSAL

24/7 NOC Support for Data Center and 8X5 support for the office locations.

S. No	Title	Cost per Month (Platinum)	Cost per Annum
1	Servers	\$24,500.00	\$294,000.00
2	(Routers, Switches, Firewall, etc..)	\$11,100.00	\$133,200.00
3	Desktops / Workstations/Office Software /Other Appliance	\$4,193.00	\$50,316.00
Total		\$39,793.00	\$477,516.00

BroadAxis onsite Support

S. No	Location	Unit Cost/Month	QTY	Total Monthly Cost	Total Annual Cost
1	Washington DC	\$11,000	3	\$ 33,000	\$396,000

BroadAxis will extend the Tier 1 services with 3 onsite consultants and the option to add additional resources at the same price.

PRICING MODEL

Smart IMS proposes a device-based cost model where we propose management and proactive as well as reactive 24X7 support of servers, applications, tools, and services.

The pricing model is based on the number of servers, workstations, etc. as given by API in the Q/A document. The unit cost model benefits are listed below:

- Additional Smart IMS Value Add services will be provided, at no additional cost. A detailed list of these services will be sent as a separate Appendix before the start of the project.
- The service agreement contract will be for one year from the date of the project. This includes 24 months' support preceded by one-month onboarding and transition period.
- The backup and patching services are also included in the proposed unit cost model.
- We understand that there might be a requirement at the colocation facility of remote hands support, we will ensure to provide remote hand support as per the requirement at the colocation facility (Min 4 hours @\$500) and then at a rate of \$120/hour. The service will be provided depending on the priority of the issue, either on a same business day or the next business day.

LONGEVITY DISCOUNT/ INCENTIVE

The below annual cost is valid for three years. On the extension of the contract beyond three years, a longevity incentive of 2.5% will be given valid for a further two years. Also, the new devices included within this period (<20 devices) will be supported without a change in the cost. If the number of the increased device is more than 20 then a per-device cost will be reassessed at the rate of \$120/device/month.

DELIVERY TIME

The services shall be delivered as per the expected SLA described in the technical proposal document.

The contract shall be governed by the laws of the States of New Jersey and New York.

Smart IMS uses a blended rate card per resource and resource skill level. This charge per resource will include required internet, Workstations, Power - including 24x7 generator backup, dedicated Central VOIP line, Service Delivery Manager for customer review.

ASSUMPTIONS

Our proposed solution is based on the following assumptions:

- Datacenter Design, architecture & deployment of devices will be handled by the API IT team.
- Licenses for systems, servers, application software, and services will be managed and handled by the API.
- Remote connectivity options will be provided by the API, for Smart IMS, to monitor & manage the servers, devices, software, tools, and applications.
- Vendor Support contracts for server, software, applications, tools, and devices are current and renewable.
- The API will provide access to all monitoring tools currently in use, including but not limited to Provance.
- Smart IMS will have a detailed inventory of the servers that will be included under this contract. Also, Smart IMS will follow the API processes to obtain access to in-scope servers, databases, software, and tools. Any changes (patch installation) will be coordinated with the API's IT & Server team(s) and will follow the API's Change management process. Also, Smart IMS will work with the operations team to test and then promote patches from development and QA systems to production.
- Smart IMS will receive free and clear access to the facilities for this project.
- The API shall ensure the availability of all key personnel and designate a Single Point of Contact for the Project, from implementation and throughout the project's complete duration, as per the plan.
- Smart IMS assumes that reactive support for the environment, server, software, and tools is limited to the availability and functioning, as per the standard operating procedures (SOP). Any product-related bug(s) are considered 'out of scope', however, Smart IMS will coordinate with the vendor to fix product issues. If a version upgrade is required, the vendor and the API will negotiate on license, implementation, and support.
- The API will provide requisite training sessions on systems, domain & processes to the Smart IMS engineers to help understand the environment better.
- During the transition phase, the API will provide workspace and IT resources (Hardware & Software) to the Smart IMS transition team working at their location.
- The API will identify relevant reviewers of Policies, Processes, and Forms, etc.
- The process for communication, clarifications, etc. will be defined and mutually agreed upon before the commencement of the contract
- The escalation Process is to be outlined with an agreement before project execution starts.
- The API will respond to the queries raised by the Smart IMs team as per the communication model agreed upon, before the start of the Contract. The API will provide and make available, all relevant functional processes and documents of the existing system, at the commencement of the contract.
- The schedule and pricing for the proposed solution are based on the scope of work as defined in the document shared by the API. Any change in the scope of support may require additional effort & costs.
- Database maintenance is considered out of scope.

SCOPE CHANGE CONTROL

The objectives of the change control process are to:

- Assess and establish the impact of scope changes on project schedules, resources, and pricing.
- Provide a project audit record of all material changes to the original document.

Smart IMS will track all the changes in scope through a Change process (CR) of API or as agreed between Smart IMS and API. Any deviations, additions, or deletions from the contract scope are documented in our CR File. All the relevant descriptions, risks, and efforts are noted and signed off by the customer before implementing the changes. To maintain schedule and budget control over the project defined by this document, the change control process defined in this section shall be followed.

PAYMENT TERMS

Smart IMS will invoice International Rescue Committee phase-wise as indicated in the table below. Payments are due within 30 days of the invoice date.

Invoice#	Phase	%
1	Start of the Project	20%
2	Transition Completion	20%
3	Quarterly payment in Steady phase (starting from 4 th month of engagement)	30%
4	Closing of engagement	30%