

VMware Skyline™: Proactive Model for Customer Support

About VMware:

VMware, a global leader in cloud infrastructure and digital workspace technology, accelerates digital transformation by enabling unprecedented freedom and flexibility in how our customers build and evolve IT environments. With VMware solutions, organizations are improving business agility by modernizing data centers and integrating public clouds, driving innovation with modern apps, creating exceptional experiences by empowering the digital workspace, and safeguarding customer trust by transforming security. VMware was founded in 1998 and serves around 500,000 customers with offices in more than 100 countries and headquartered in Palo Alto California.

Executive Overview:

This project aims at changing the support model within an existing organization from a reactive model to proactive model. As we go through the project in detail we can understand the reason for the shift, internal and external challenges, project methodology used and the outcomes.

Global Services (GS) Organization and the Business Opportunity:

Global Services (GS) organization's mission is to accelerate VMware customer success and ensure a best-in-class pre and post-sales experiences for customers and partners. VMware's portfolio of progressive, responsive and pre-emptive services accelerates customer realization of business value beyond their expectations and across the technology portfolio, creating customers for life.

The VMware's customer support model has been more of "Reactive Support" model which was triggered by a customer call/email reporting the issue and engaging a Technical Support Engineer (TSE) to connect with the customer and fix the issue. A Reactive Support model addresses issues after the customer experience them and takes time to resolve. Some recent data shows that time to close a case takes on average 13.5 days.

Aligning with GS mission to ensure best-in-class support for our customers and partners, VMware had a business opportunity to explore ways to provide a more "Proactive Support" model to its customers where VMware can identify potential problems before they occur and enable TSE's for more efficient resolution of issues when they occur.

In 2017, through a survey of selected customers (Inner Circle), VMware sensed and received a positive respond to a strategy for a software solution to collect product health information in customer environment to enable early detection of potential issues and their resolutions. This gave birth to VMware Skyline™ software solution.

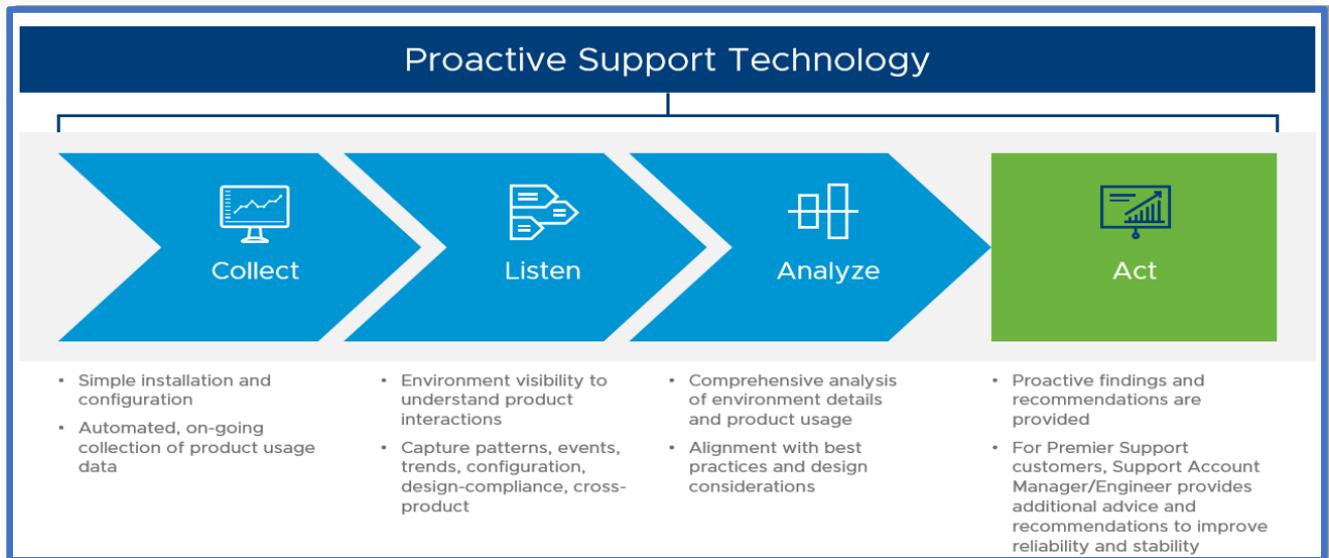


About VMware Skyline™ Solution

VMware Skyline™ is a proactive support service aligned with VMware Global Support Services. It automatically and securely collects, aggregates, and analyzes product usage data which proactively identifies potential problems and helps VMware TSEs improve the issue resolution time.

The project was selected as a Tier 1 project at the Organization level and was reviewed and approved by the VMware Project Review Board, with funding being provided to fund the project from both CAPEX & OPEX.

The project used the methodology of – Collect, Listen, Analyze and Act as described below.

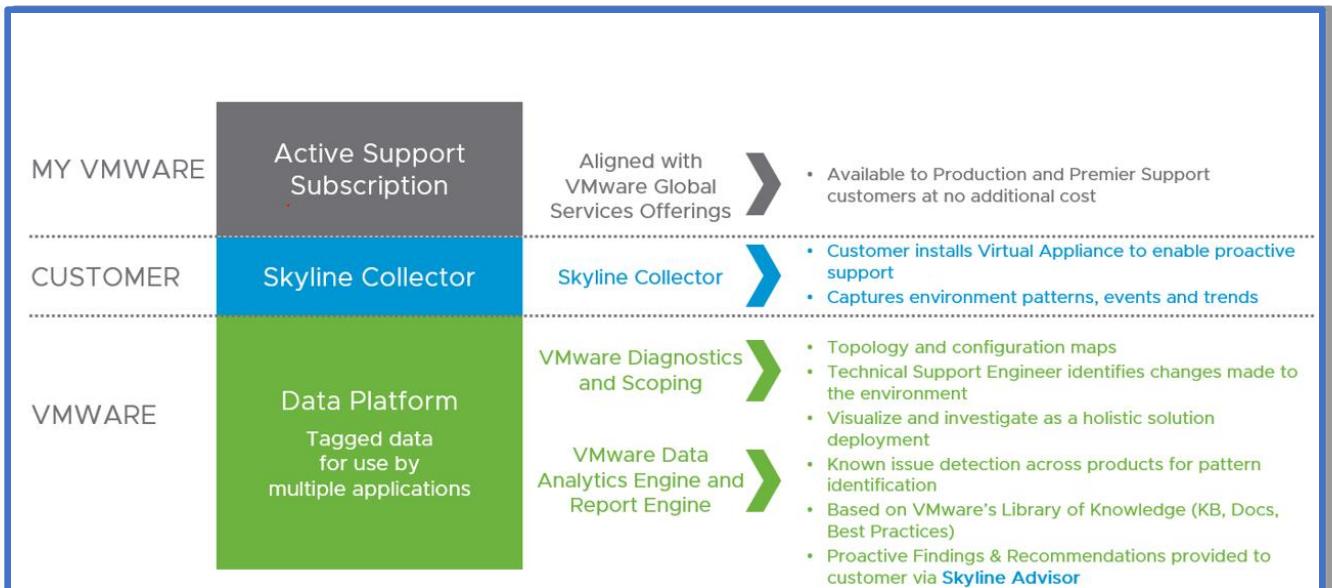


The rationale behind the solution approach was if VMware has a better understanding of the customer environment and usage,

- It can proactively provide guidance to avoid potential problems before they occur,
- It would help uncover an undiscovered bug or other anomaly that needs attention
- It can provide real time analytics that would reduce time to resolution of issues with minimal impact to customer operations

How the Solution Works

The VMware Skyline™ Collector is a virtual appliance (a pre-configured virtual machine) that gathers and aggregates product usage information such as configuration, feature, and performance data while listening for changes and events within the customer's environment. This information is encrypted and then sent to VMware for analysis. The data privacy and security of the data is ensured by VMware.



After the analysis is complete, customers can view their proactive findings and recommendations in VMware Skyline™ Advisor, which is a self-service, web-based application; provides customers with an on-demand view of the proactive support recommendations.

VMware TSEs have a similar view of the information that enables more informed conversations with the customer and improve issue resolution time performance. The TSEs use this data to resolve service requests and generate proactive operational and health assessment reports and recommendations to the customers.

Solution Implementation

The solution prototype was built and deployed with 4 customers who volunteered to test and improve the solution. The customers were from healthcare, service and technology domain who tested the prototype version focused on 4 areas – Operational support service, Health assessment service, design assignment services, software upgrade planning service



The implementation continued with Controlled onboarding starting in Q3 FY18. The VMware Skyline™ product general availability to all customers was announced by the VMware CEO in VMworld US, VMworld Europe and at VForums in APAC regions.

Business Transformation & Operational Excellence World Summit - 2019

Nomination: Technology Enabled Process Automation

Solution Features:

The VMware Skyline™ product, is available with a self-service portal for the customers to alert them of expected issues and proactive guidance on the best practiced and fixes

Key Features:

- Self-Service Portal
- Ever-evolving analytics and reporting potential problems before they occur
- Prescriptive and predictive guidance based on best practices

Account Details

- Registered Collectors
- Total number of servers, hosts, & VMs analyzed
- Past and upcoming analysis dates

Proactive Findings

- Display by Cards or Lists
- Personalized recommendations for each finding
- Filters for findings based on specific criteria

OSR Library

- Feature available for Premier Services customers
- Archive of all standard and custom Operational Summary Reports

VMware Skyline – Proactive Support Operational Summary Report

1. Deployment Summary

Company: vSphere Datacenters: Horizon-Lab-02

PRODUCT	VERSION	INVENTORY
VMware vCenter Server 0001.corp.acme.com	6.5.0 build-5973321	StoragePod: 7 ClusterComputeResource: 6 Datastore: 96 VMwareDistributedVirtualSwitch: 2 Network: 2 Datacenter: 1 HostSystem: 31 ResourcePool: 1 ResourceGroup: 1 Folder: 316 DistributedVirtualPortgroup: 82 VirtualMachine: 1103
NSX Manager 0003.corp.acme.com	6.3.2 build-5672532	ClusterComputeResource: 4 hostStatus: 26 nsxmanager: 1 vcenter: 1 Controller: 3

VMware Skyline – Proactive Support Operational Summary Report

2. Recommendation Summary

PRODUCT	Critical	Moderate	Trivial	Total
VMware vCenter Server 0001.corp.acme.com	7	3	1	11

Critical: Specific items of concern noted. These items require immediate attention.

Moderate: Items of potential concern noted. These items are either non-critical, or require further investigation.

Trivial: Deviations from best practices noted, but addressing these may not be an immediate priority.

VMware Skyline – Proactive Support Operational Summary Report

Finding ID: HostPaxPSDREQ2162Rule **Priority**: CRITICAL **Date Actioned**: 2/21/2018 **Number of Findings**: 3

Issue Description: ESXi host 6.0 crashes with PSOND

Recommendations:

- To resolve this issue, please upgrade your host to ESXi 6.0 update 2a. <https://kb.vmware.com/article/2150292>

Notes: Editable field for engineer to make comments or notes

Solution Adoption and Impact

We are tracking VMware Skyline™ solution adoption and impact on customer issues time to resolution (TTR) metrics. The solution is showing gains in TTR metrics. As of November 2018, 648 customers chose to adopt VMware Skyline™ with more than 5000 service requests (SRs) were processed through this solution.

TTR TODAY

Customer Confirm	13.5 Avg Days to Close	1.1
Find Answer	7.8	6.0
Re-route to TSE	2.0	2.0
Consult Peers	0.3	0.3
Upload Logs	1.4	0.9
Identify Issue	0.6	0.4
First Response	0.4	0.4

TTR VMware Skyline

Customer Confirm	10.8 Avg Days to Close	1.1
Find Answer	7.8	6.0
Re-route to TSE	2.0	2.0
Consult Peers	0.3	0.3
Upload Logs	1.4	0.9
Identify Issue	0.6	0.4
First Response	0.4	0.4

TSE Time Savings per Quarter from TTR Reduction

Quarter	Customers Added	TSEs saved	SRs Addressed
Q3FY18	52	1	52
Q4FY18	66	1	118
Q1FY19	194	3	312
Q2FY19	336	5	648
Q3FY19	822	9	2,460
Q4FY19	1030	11	4,000

First Year Benefits:

- 648 Customers adopted
- 5,074 SRs serviced with VMware Skyline