



Preface



Cloud operations and optimization management represent mission-critical products that require long-term investments, organizations have to rely on trusted technology partners. Such a recommendation does not imply that IT must preserve the status quo. An organization that relies on a vendor for enterprise system management or for it's virtualization infrastructure does not necessarily need to rely on the same vendor for cloud management. Quite the opposite; selecting a CMP solution is a unique opportunity to reconsider any ongoing business relationship.

CloudFX on the back of SinglePaneFX are emerging as world class platform leader compared to CMP and Cost management only companies as we cover th key cloud operations mgt areas with the right mix of Breadth (eco system) Vs Depth (management ability). This is the critical success factor as we believe in inside out/customer way of managing and transforming the CloudOps with end-to-end management capability

that can override the management to bring in real transformation and Rol.

From the outset, CloudFX cloud management platform has been and will remain an open, adaptable and integrated approach to managing the hybrid cloud landscape from a single point. Single Platform to address all key tenants of Enterprise Cloud operations Management though a unified platform approach. Today in its 6th generation CloudFX SinglePaneFX is one and only cloud and ICT independent Digital and Cloud Service platform providers capable of automating tens of thousands of workloads and yet normalizing consumption, provisioning, service management, analytics, billing and payment irrespective of the source of the service. We are proud of where we are but with IoT and AI now in front of us, both driven at some level by API's, we have developed an incredible platform to evolve into different directions.

CloudFX: SinglePaneFX | Whitepaper

Challenges



The Opportunity to lead positive business transformation through a unified approach to Cloud Business Model innovation, IT Service automation, Product and Go to Market modernization and real-time delivery has never been greater than it is today. The advent of cloud and on demand access of services has made it possible by unlocking the true potential of cloud i.e. pay-as-you go digital services. This is helping Enterprises to scale up and down on demand and meet the ever-changing business requirements in real time. While there is an ease of use and on demand access to services, new complex challenges have also emerged across the Enterprises who are embracing multi cloud or hybrid cloud strategy which is forcing CIOs and CFOs re-think the way they are consuming and managing their cloud services. These key challenges include operational inefficiencies, lack of visibility, increasing cloud costs, non-compliance and security threats etc.

Core Challenges of Multi Cloud Operations:

Complexity management

- Lack of centralized cloud service lifecycle management mechanism
- Multiple management consoles. Tools proliferation
- Real time visibility and analytics
- · Skill set requirements

Financial management

- Cost visibility: billing, brokerage, chargeback
- · Enterprise-wide cost governance structure
- Cost optimization model and best practices

Governance and Compliance

- Policy driven governance
- Security analytics
- Compliance management

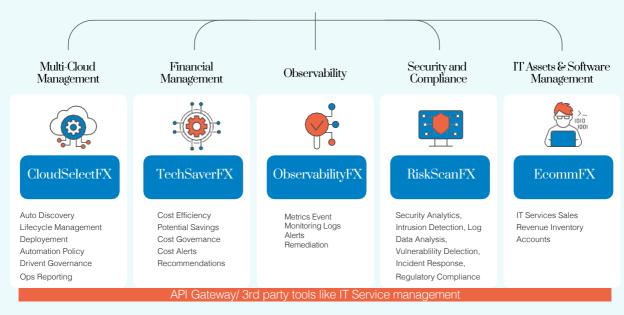
...and point solutions add even more cost and complexity

CloudFX SinglePaneFX



Established in 2009, Singapore, CloudFX has emerged as a Global leader in Multi-Cloud Operations Management Platforms & Consulting to deliver cutting edge ConvergedOps platform solutions. CloudFX SinglePaneFX is a patent pending technology that delivers the promise of multi cloud management by providing real time analytics, deep insights, and remediation to help manage and optimize the cloud consumption and management in an agnostic manner. It is an integrated yet modular approach to manage all key cloud operational challenges like complexity, cost and governance. Cutting edge platform combined with the consulting services enables enterprises

CloudFX SinglePaneFX





Existing Apps







SaaS Apps

Cloud Native

build the practice of Enterprise cloud operations management, financial accountability and governance to enable distributed teams to make business trade-offs between speed, cost, and quality of cloud services.

With CloudFX SinglePaneFX, Enterprises will be able to:

Complexity Management

Facilitated by role specific management consoles that deliver tailored real-time information to meet the needs of executives ranging from IT Managers and CTOs (ObservabilityFX and RiskScanFX) through to CFOs and CEOs (TechSaverFX and EcommFX).

Financial Management

Delivered by management information metrics that highlight –

- How much each component of an Enterprise Technology Eco-System is costing compared to its utilisation
- How to Achieve Better Cost Efficiency
- How to Transform Shared Services Organisations from Being Cost Centres to Profit Centres

Governance and Compliance

Provided by -

 Governance mechanisms which identify in real-time the frequency and nature of internal non-compliance events External cyber threat detection mechanisms, counter-measures and intelligence

Real time technology operations management that immediately alerts senior IT management of component of the system that is malfunctioning or about to malfunction

SinglePaneFX mitigates cloud complexity, cost and governance challenges by:

Complexity management

- · Unified and authorized access to the services
- Unified dashboards across automation, monitoring, governance, cost management
- Orchestration and Lifecycle management
- · Configuration control and management
- Observability- Monitoring, Metering & Logging
- Ops Analytics

Financial management

- · Billing Aggregation and Enablement
- · Cost Transparency & Analytics
- · Governance and Optimization
- API management 3rd party tools

Governance and Compliance

- Policy Based Resource Governance
- Security Analytics
- · Continuous Compliance
- Security & Data Protection

Key Tenants



CloudSelectFX - Cloud Management platform

From the outset, CloudFX cloud management platform has been and will remain an open, adaptable and integrated approach to managing the hybrid cloud landscape from a single point. Single Platform to address all key tenants of Enterprise Cloud operations Management though a unified platform approach. Today in its 6th generation CloudFX SinglePaneFX is one and only cloud and ICT independent Digital and Cloud Service platform providers capable of automating tens of thousands of workloads and yet normalizing consumption, provisioning, service management, analytics, billing and payment irrespective of the source of the service.

Key Features:



Insight

Discovery, Monitoring, Performance, Reporting, Analytics, Right Sizing, Chargeback and Trending



Contro

Security, Compliance, Alerting, Policy based resource and configuration enforcement



Automate

IT process, Task and Event, Provisioning, Workload management and Orchestration



Integrate

System management, Tools and processes, Event consoles, CMDB, RBA, Web Services

CloudFX: SinglePaneFX | Whitepaper

CloudSelectFX is an integrated platform to manage the hybrid cloud landscape connecting infrastructure, data, applications and business processes. CloudSelectFX is a multi-cloud, multi-vendor management platform supporting more than 30 cloud providers. Platform enables automated service provisioning across all digital services and seamless portability between private and public clouds. Enterprise-grade management capabilities that ensure the proper security procedures and standards are applied consistently across all cloud resources, and making sure that the cloud solutions are fully auditable. CloudSelectFX brings in an analytics-based, policy-driven approach that places the right workloads in the right places—delivering optimal price/performance and automatic, pay on demand business service scalability. CloudSelectFX enables "anything as a service" from core business services to globally supported, on demand multi provider services at unprecedented scale. Automate, orchestrate, provision, and manage the lifecycle of your cloud services within a single intuitive, integrated and adaptable platform. With more than 30 cloud providers connected, we are sure to offer the cloud connectivity you need now and in the future.

TechSaverFX - FinOps

CloudFX TechSaverFX is a cutting edge technology to deliver the promise of multi cloud cost management by providing real time analytics and deep insights to help manage and optimize the cloud spending in an agnostic manner. Platform combined with the consulting services enables enterprises build the practice of bringing financial accountability to the variable spend model of cloud, enabling distributed teams to make business tradeoffs between speed, cost, and quality.

From analyzing historical data, managing expenses, optimizing resources towards establishing cost governance across the cloud infrastructure, FinOps delivers visibility, control business aligned efficiency across your cloud environments.

Key features:



Explorer, to provide complete visibility of Cloud costs (Azure, AWS, GCP)



Policies and Governance Tool to automate & regulate the processes



Alerting Tool to scale proactive cost monitoring



Reporting Tool to provide data insights



Cost Recommendations Tool for enabling teams to take timely costs saving decisions Professional Services to:

- Analytics
- Operations
- Trainings

TechSaverFX framework - FinOps

FinOps is the operating model for the cloud – combining systems, best practices, and culture to increase an organization's ability to understand cloud costs. It is the practice of bringing financial accountability to cloud spend – enabling global teams to make informed business decisions. FinOps empowers collaboration between IT, Engineering, Finance, Procurement, and the business. It enables IT to develop into a service organization that focuses on adding value to the business with cloud technology. With commitment and regular measurement and transparency, manual execution can establish confidence and trust, and only then do you move toward automated optimization. The great thing about optimizing in the cloud is that wins can come fast and early with the right information, while investments in later stages toward automation are really about ensuring that optimization just becomes part of the fabric and consumes far less of anyone's time.

Cloudfx TechSaverFX offers the following value, benefits, and business outcomes

- Get real time visibility into cloud costs across the organization
- Gain knowledge and expertise on how to save money on cloud workloads
- Understand what resources and knowledge is required to keep risk low
- · Identify your actual saving potential
- Manage optimization changes to realize the identified savings
- Spend less time searching for savings
- Avoid technical and licensing pitfalls related to the implementation of cost savings
- Make quick informed decisions with visibility into potential savings and their impact
- Avoid spending time on driving decisions to apply suggested optimization changes
- Increase the likelihood of achieving business goals related to budget and services

TechSaverFX – Cloud Cost efficiency

A very simple efficiency score that is quite effective is calculated as follows:

cost efficiency = (current cost – potential savings)/current cost

This nets a low score if the unexecuted potential for savings is high relative to the current cost. As the gap narrows the score goes up.

Next Steps for Building an Effective FinOps Practice

CloudFX Cloud Advisor team has helped numerous large enterprises meet complex cloud financial management goals. Schedule a 1:1 consultation with our Advisors at www.cloudfx.com/demo to review your FinOps approach and get complimentary advice on how to make your strategy more automated and integrated.

ObservabilityFX - Observability

CloudFX ObservabilityFX provides complete visibility into IT workloads across on-premise and cloud environments by collecting and holistically analyzing metrics, events/logs and traces, which are the 3-pillars of Observability.

CloudFX ObservabilityFX solution enables IT organizations to future proof their monitoring and Observability investments in a cost effective and vendor agnostic way by leveraging open-source components, while also benefiting from reliability, customizations and enterprise class support offered by CloudFX.

- Built around metrics: Metrics represent a state, give insights, Metrics can be graphed
- Complete Ecosystem: For cloud and on prem
- Efficient: "Scrapes" millions of metrics
- · Manages its own optimized db

Enterprises are struggling with visibility gaps within modern hybrid cloud IT environments, due to legacy tooling and architectures that also are expensive implementations. ObservabilityFX addresses these gaps by providing a simplified solution that is built with best-in-class open source and open telemetry-based components, all packaged up as a single self-contained module that can be up and running within few minutes. Use it to instrument, generate, collect, and export telemetry data (metrics, logs, and traces) to help you analyse your software's performance and behaviour. ObservabilityFX is an open-source observability framework. It offers vendor-agnostic or vendor-neutral APIs, software development kits (SDKs) and other tools for collecting telemetry data from cloud-native applications and their supporting infrastructure to understand their performance and health.

Managing performance in today's complex, distributed environment is extremely difficult. Telemetry data is critical for helping DevOps and IT groups understand these systems' behaviour and performance. To gain a complete picture of their services' and applications' behaviour, they need to instrument all their frameworks and libraries across programming languages.

ObservabilityFX standardizes the way telemetry data is collected and transmitted to backend platforms. It bridges visibility gaps by providing a common format of instrumentation across all services. Engineers don't have to re-instrument code or install different proprietary agents every time a backend platform is changed. ObservabilityFX will continue to work, too, as new technologies emerge, unlike commercial solutions, which will require vendors to build new integrations to make their products interoperable.

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RiskScanFX - Security Information and Event Management

Organisations struggle today to maintain a security posture with growing cyber incidents, difficultly in creating secure policies and finding the right tools to achieve good posture. In many cases, organisation work with the tools that are time/money consuming and do not integrate.

Below are some of the key challenges faced by any organisation to maintain the desirable security posture

- **Maintain Inventory:** Organisations struggle today to maintain an a comprehensive list of IT assets that needs to be protected
- Vulnerability Assessment: There is no proper process or governance for regular assessment of application to identity weakness in the applications
- Secure System Configuration: No standards or frameworks followed to ensure system configurations are regularly monitored and best practices are implemented
- Monitor all assets to detect attacks: Monitoring is key to detect any vulnerabilities or attacks. Today, most organizations do not have infrastructure or right
- Subject Matter Experts: Lack of experts within the organization or understanding of security aspects delays in implementation and also leaves organizations vulnerable to attacks.
- Enterprise-ready security monitoring solution for threat detection, integrity monitoring, incident response and compliance.
- Agent based solution. Also, supports monitoring for agent-devices like firewalls, switches, routers or network IDs etc.

RiskScanFX platform has several inbuilt modules with the objective of improving the overall security posture of an organization.

- **Inventory:** This module gathers all the information from monitored endpoints where the agents are
- Vulnerability Detector: This module discovers vulnerabilities that might be present in OS and applications on the monitors endpoints
- Security Configuration Assessment (SCA): This module reviews system configurations and suggests alterations when configurations fails to meet defined secure system policies.
- Threat Detection and Response: This module identifies malware and any anomaly detection on monitored endpoints.

Delivering ROI

Operational Efficiency

30% cost reduction in running cloud operations

Cost Efficiency

40% reduction in cloud spending

Governance and Compliance

40% reduction in compliance breaches and enhanced risk mitigation

Tools investments ROI

Tools consolidation resulting in huge savings (~multi-million dollar)

CloudFX Pte Ltd.

Marina Bay Financial Centre (MBFC) Tower 2, 8 Marina Blvd., Singapore, Central Singapore 01, Singapore

CloudFX India

91 Springboard Business Hub, #175 and #176, Bannerghatta Main Rd, JP Nagar Phase-4, Bangalore, Karnataka 560076









