CA Virtual Network Assurance bridges existing infrastructure management capabilities for new SDN/NFV networks
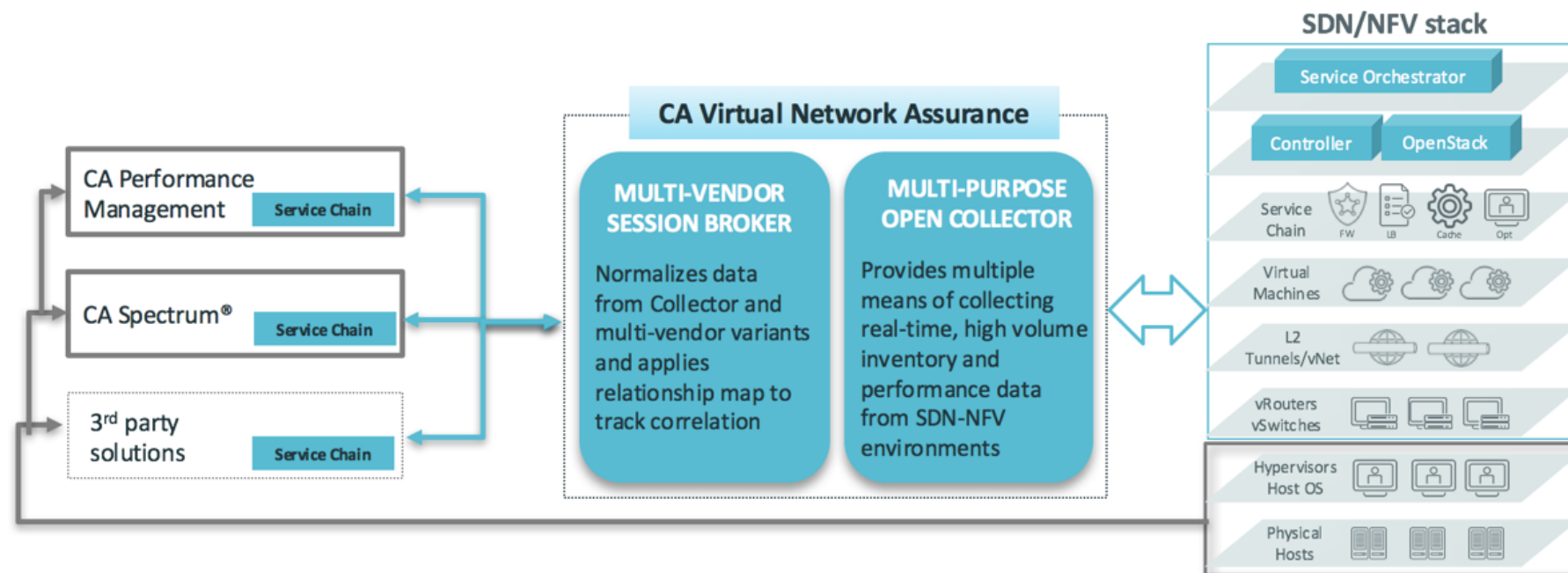
The application economy brings new and unprecedented demands on the network and the business. Software–defined networking (SDN) and network functions virtualization (NFV) are the keys to staying competitive and agile but will undoubtedly introduce complexities and vulnerabilities into operational systems and processes. CA Virtual Network Assurance offers next-generation network performance and fault management capabilities to reduce the risk in SDN/NFV deployments. The solution provides advanced collection, normalization and detection methods to extend network visibility and remove management complexity of the highly dynamic and complex SDN/NFV networks.

Business challenges

In order to thrive in the application economy, network agility is a requirement in order to deliver advanced and innovative services. For any network to stay relevant and competitive in todays digital age, the inclusion of software-defined networking (SDN) and network functions virtualization (NFV) in its strategic plan is paramount. But today's management and operational processes must overcome the following next-generation network challenges in order to ensure success:

- Require visibility into the physical and virtual network relationships and dependencies for fault isolation

- Ensure scalability to support frequency and scope of change enabled by highly dynamic SDN/NFV environments

- Requirement for flexibility in existence today to support the wide array of SDN/NFV vendor platforms, protocols and APIs

- Anticipation of automation or policy driven innovation in existence today to support self-healing and self-optimizing SDN/NFV networks

Marquee benefits yielding $830K per year in financial impact are detailed on the reverse side of this document in order to show examples of business value achievable with CA Virtual Network Assurance.

Virtual Network Assurance for the SDN/NFV Stack

Benefits and results

- Accelerate service delivery of revenue-generating services and tailor them in real time.

- Gain operational confidence by accurately identify vulnerabilities and bottlenecks that could impact service delivery.

- Boost DevOps by providing the bridge between development and operations to certify new applications on live environments and improve time to market.

- Investment protection. Through integration with CA Performance Management and CA Spectrum extends comprehensive capabilities for performance fault management to support highly scalable SDN/NFV environments.

- Reduce network CapEx/Opex by maximizing infrastructure spend and avoiding over-provisioning of network resources and bandwidth as a means of insurance for service outages.

Key features

CA Virtual Network Assurance meets your business needs by offering:

- **Extended visibility.** Bridge the dynamic relationships/dependencies of new SDN/NFV inventory and performance with legacy infrastructure data into a single pane.

- **Stack correlation.** Minimize the management complexity that breeds bottlenecks and assure all the layers of the SDN/NFV stack.

- **Multi-vendor protocol and platform coverage.** Support for SDN controllers, orchestrators, OpenStack and vendor agents through advanced API normalization with on-demand certification.

- **Integrated metrics.** Support for new overlay metrics with SNMP for comprehensive performance analytics.

- **Carrier-grade scalability and monitoring.** High performance reporting and analytics of scaled SDN/NFV environments alongside legacy networks.

For more information, please visit ca.com/us/products/ca-virtual-network-assurance.html

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Business Value Estimations

CA Virtual Network Assurance benefits can be quantified via a wide range of benefit scenarios quantified for an illustrative Communication Services Provider (CSP) or a Mega Scale Enterprise (MSE) with $1 Billion in annual revenue. A selection of these benefits is listed below to show common areas measured.

Business Value Proposition	Business Value Enabler	Specific Measurement	Impact Range [1]	Key Resources Affected	Average Resource Value [2]	Projected Financial Impact / year [3]
Reduces costs of managing SDN-NFV environments and legacy networks	• Big data-driven troubleshooting advanced analytics provides real-time detection of anomalies to proactively avoid problems • OOTB dashboards and topology maps for key technology domains, with intelligent metric views and guided workflow based or best engineering practices for efficient triaging • Integrates discovery workflow in hybrid SNMP & NFV environments for large deployments • Reduces complexity managing SDN-NFV networks & devices with full visibility into virtual & physical components & relationships • Provides multiple means of collecting real-time high volume inventory & performance data from SDN-NFV environments • Provides analytics on application routing of Software Defined WAN	Labor cost reduction	1 - 3%	CSP / MSE count of NOC, Service Desk and Business Operations FTEs	200	$440,000
Reduces MTTR for network outages or performance degradations	• Provides detailed, accurate and up-to-date topology mapping and "network health" • Quicker root cause identification • Provides visibility into self-services usage • Real-time operations view to deliver QoS to respond to increasing video streaming • Detects misconfigurations of hosts/servers, network components, bandwidth misuse • Provides visibility into systems performance and impact on infrastructure • Integrating with CA Spectrum integration, mitigate penalties, service credits, and other allowances by knowing when SLAs cross warning thresholds • Integrating with CA Performance Management, get access to OOTB dashboards with intelligent metric views and guided workflow based on best engineering practices for efficient triaging	Labor cost reduction	8 - 12%	Average # of FTEs on Triage / Bridge call	10	$90,000
Reduces hardware & software acquisitions related to over-capacity provisioning	• OpenAPI access and consolidation of tool sprawl provides reduced cost of maintenance • Multi-tenant access control provides system scalability • Delivers future-proofing through integration with CA Performance Management and CA Spectrum for SDN-NFV technologies • Ability to re-use existing infrastructure management assets • Health and utilization dashboards provides means to get best value from current infrastructure • Avoid over-provisioning and deploy/consume as needed with improved resource efficiency • Improved capacity planning and proactive response to demand	Virtual network hardware, software, maintenance cost	2 - 4%	Virtual network hardware, software, maintenance cost	$10,000,000 [4]	$300,000

This table shows some **key benefits** of **CA Virtual Network Assurance**. Your CA Technologies representative can also share additional and more detailed ROI business case examples for this solution by engaging the CA Business Value Analytics Team. This team works with CA's customers to develop and analyze a comprehensive set of assumptions and environment specific metrics in order to build customized projective business cases.

1. The **Impact Ranges** shown above are estimations derived from the analysis of benchmark data which is a composite of data derived from industry analyst published information, interviews with subject matter experts and experiential data from prior projective analyses.
2. The **Average Resource** column shows resource values representative of those used in business case analyses by the CA ROI & Business Value Analytics Team.
3. The **Projected Savings** may be representative results for organizations whose Average Resource values are similar to those in this table. Labor rates for all FTEs are assumed to be $55/hour. Actual calculations may include additional metrics and assumptions. Your CA Technologies representative can provide detailed benefit calculations for values in this column.
4. The **Average Resource** Value selected for virtual network infrastructure is 1% of $1.0B in annual revenue for the reference CSP/MSE enterprise.

The values expressed in this table are not a guarantee of achievable results and will vary depending upon your current infrastructure, people, and processes as well as the appropriate, effective implementation, adoption, and use of the CA solution.