AppDynamics Application Performance Management (APM)

AppDynamics monitors and manages your entire application delivery ecosystem. From mobile app, browser client request, through the network to backend database and application servers.

How does it do that?

AppDynamics continuously discovers and monitors all processing in your application environment using advanced tag, trace, and learn technology across distributed transactions.

AppDynamics agent (Java,. Net, Php etc.) detects a call to a service entry point (e.g login, checkout) and follows the execution path for the call down the call stack.

The AppDynamics agent now sends collected usage metrics, code exceptions, error conditions and exit calls (calls to web service or database) to backend systems to the Controller.



Metrics: Metric is a unit measurement, state or events in any monitored environment

 AppDynamics agent detects this performance metric and registers them with the Controller. The agent subsequently reports this same metric at interval depending how it occurs.

- Metrics can relate to the overall performance of an application.
- Metrics can also relate to application request, response time, error rate and load
- Metric can be used with regards to infrastructure performance e.g CPU or Memory usage.

	Terminology	Meaning
	App Agents	App agent collects performance data about application, server, web pages and report same to the Controller
	Baseline	Baseline provides a reference point from which performance can be bench marked. AppDynamics supports both dynamic and static baseline
	Backend	AppDynamics gives you visibility into calls made to unmonitored destinations inside or outside your application infrastructure. In AppDynamics, databases and remote services such as web services, message queues are collectively known as backend.
	Business Metric	Business metrics capture data from a method's parameters execution or return values and report on the performance of the business metrics such as such Total order value, Revenue loss etc.
	Business Transaction	A business transaction represents all activities around user requests that accomplish a logical user activity, such as log in, logout, add to cart, Checkout etc.

	Terminology	Meaning
	Machine Agent	A machine agent instruments a machine to report data about hardware and the network to a Controller. AppDynamics provides both a Standalone Machine Agent and an embedded machine agent in the App Agent for .NET. The Standalone Machine Agent functionality can be extended to add more metrics. Many extensions are provided on the AppDynamics eXchange."
	Business Application	An AppDynamics business application models all components in an application environment that provide a complete set of functionality.
	Controller	The Controller collects, stores, calculates baselines for, and analyzes performance data collected by AppDynamics agents. You can use On-Premise or SaaS controllers.
	Entry Point	An entry point is a method or operation in the application code that begins or extends a business transaction.

	Terminology	Meaning
	Nodes	A node is the basic unit of processing that AppDynamics monitors. An app agent or machine agent or both instrument a node. Nodes belong to tiers."
	Tiers	A tier represents a key service in an application environment, such as a website or processing application. A tier is composed one or more nodes or backends. An "originating tier" is the tier that receives the first request of a business transaction. A "downstream tier" is a tier that is called from another tier.
	Flow Map	A flow map graphically represents the tiers, nodes, and backends and the process flows between them."
	Health	Health in AppDynamics refers to the extent to which the application being monitored operates within the acceptable performance limits defined by health rules. Health is indicated by a green/yellow/red color scheme."
	Exit Point	

	Terminology	Meaning
	Health Rule	Health rules allow you to select specific metrics as key to the overall health of an application and to define ranges for acceptable performance of those metrics. AppDynamics supplies default health rules that you can customize, and you can create new ones."
	Events	Lists various problems that have occurred during the time range specified for the dashboard, such as health rule violations, business transaction health, code problems, etc
	Transaction Score Card	Displays the status of the business transactions, based on thresholds that specify when a transaction is slow, very slow, stalled, or in error status."
	Load	Shows the number of calls or request per minute
	Response Time (ms)	Shows the average response time for all calls made."

	Terminology	Meaning
	Errors	Shows the number of errors that have occurred.
	Exceptions	Displays the number of code exceptions that have occurred."
	Transaction Snapshot	A transaction snapshot is a set of diagnostic data for a business transaction instance across all app servers through which the business transaction has passed, at a specific point in time. Transaction snapshots help you troubleshoot the root causes of performance problems.

