

Requirement ID	Requirement Description
NET_PERF_050.00	During initial VZAppZone download or any subsequent VZAppZone-initiated content/application downloads, layer 3 communications between client operating in device and Supplier Server should not contain more than 10% total packet errors including defective packets, re-transmission or other “non useful” message artifacts that reduce overall transport efficiency.
NET_ACPG_010.00	Developer shall submit their network touching data applications to Intertek/QP as part of the VZW Data Application Testing Process for validation of requirements presented in Section §1.3.3 entitled “VZW Data Applications General Requirements”
NET_ACPG_020.00	Developer shall ensure that their Data Applications / Contents are free from Virus.
NET_ACPG_030.00	Developer shall be responsible for DRM of the contents provided by them
NET_VDAG_010.00	The data applications/ contents presented in the catalog must adhere to VZW Data Application Testing Process
NET_VDAG_020.00	Data application submission must accompany with: Data Application User Guide
NET_VDAG_030.00	Developer must submit Data Application Test Plan containing all the test cases along with their execution results, clearly specifying whether the application meets the requirements (P), does not meet the requirement (F), or the requirement does not apply (NA). Notes can be included as appropriate. A waiver can be requested in the case of Non compliance, if any
NET_VDAG_040.00	Developer shall ensure that their Data Applications / Contents are free from Virus.
NET_VDAG_050.00	Developer shall be responsible for DRM of the contents provided by them
NET_VDAG_060.00	Developer shall provide Data Application Product Technical Documentation containing (where applicable):
	i. Network Architecture Diagram
	ii. Call-flows: Time and message sequence for normal work-flow and during exceptions from network interaction perspective
	iii. Traffic Generated: (Payload + Overhead) for best case and worst case scenarios, if applicable
	iv. Protocols: List of Protocols implemented along with version numbers
	v. AAA and App Auth Busy Hour Forecast: Number of Pings per second for a minimum of 3 years from the period of launch
	vi. SMS/MMS Usage Forecast: SMS / MMS usage forecast if they are used for application wakeup or for any other implementation of application functionality
	vii. IP address /URLs/Ports: List of all the known IP addresses, URLs and Ports hard-coded on the applications. This will be confirmed by subjecting the application undergoing a trace route and also to determine the average hops required for the client to interact with the application server.

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	viii. Declarations:
	1. Whether or not the application is a Preloaded application
	2. Whether or not the application is a Network Aware application, and if yes, what is the expected level of interaction: High, Medium, Low
	3. Whether or not the application is a Single Player or Multiplayer application
	4. Whether or not the application is a Streaming application and if yes the maximum rate at which the data streaming is expected to occur
	5. Whether or not the application is a high, medium or low usage generation application
	6. Whether or not the application is expected to run in background only, foreground only or runs in both the modes
	7. Will not violate the privacy of the user's data in any way and also will not install any cookies that monitors the behaviors of keystroke and likes.
	ix. Failover Scenarios: All the exceptional cases
NET_AICN_010.00	Application shall gracefully handle no-service conditions.
NET_AICN_020.00	Application shall gracefully handle loss-of-service conditions.
NET_HTNV_050.00	The application shall be able to establish connections to all applicable external servers specified in the "Data Application Product Technical Document as provided by the Developer") and work appropriately
NET_HTNV_070.00	Where applicable, forecast for SMS messaging for SMS wakeup or SMS push features shall be provided in the "Data Application Product - Technical Documentation."
NET_HTNV_080.00	Application shall not retry more than two (2) times if transmission is interrupted (total of 3 attempts).
NET_HTNV_090.00	Data Service (Client and Servers) shall gracefully handle loss of connectivity situation by implementing some kind of throttling mechanism to prevent sending unnecessary messages to other non-responding side.
NET_DEVI_030.00	Memory Requirement: Developer shall make every effort to ensure that there is no known memory related defect (leak, null pointer etc.) on the client. Where applicable, Developer shall submit evidence of such compliance. In this context, Developer is encouraged to perform "Running Application Verifier: Microsoft's App Verifier test" to evaluate the application's memory leak performance. This test comes bundled as part of the Microsoft CETK tests and verifies that there are no memory leaks in the application and can also detect some forms of heap corruption
NET_DEVI_050.00	Device Performance: The client software once loaded on the device shall have no significant negative impact to the performance of any other applications running on the device,

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NET_DEVI_060.00	If required, Developer shall obtain Mobile2Market signature (in addition to VeriSign) signature to ensure that there are no unwanted message or warning displayed to user.
NET_TC_010.00	Forced Disconnect from the Content Server - The application must gracefully handle a termination of the connection to the content server. Any device originated connections following the application's termination may be cause for failure and will be analyzed and discussed with Verizon Wireless and subject to their approval.
NET_TC_020.00	Data Call Throttling Management - Data Retry and Data Call throttling requirements shall be applicable to all devices and applications operating on the Verizon Wireless network including handsets, modules, modems, data cards, tethered laptops, advanced devices, and remote devices. The application should not exceed the parameters as defined by the latest DCTM requirements as provided by Verizon Wireless.
NET_TC_030.00	Server-to-Client Requirements - The front-end Server communicating to the Client on the device shall implement a timer mechanism whose expiration shall result in the termination of server originated network activity that adheres to the DCTM requirements on the device side. Any server originated network activity that is observed to be in excess of this requirement will be reviewed by Verizon Wireless is subject to their approval.
NET_TC_040.00	IP/URL Disclosure - The application shall not be directed to any undisclosed IP/URL or ports at any time during it's operation on the device. This information must be provided to Verizon Wireless prior to application submission. Any non-disclosed network activities of the application will be reviewed by Verizon Wireless and may be cause for the application's rejection.
NET_TC_050.00	Cached Data - The application will not cache any private, sensitive user data on the device. The application will not use undisclosed cached data (cookies) and the application submitter will fully disclose the purposes of caching this data (including the full sharing rights for this data). Any data that is handled should not be misused or shared without prior user/carrier consent. No user data may be shared with any 3rd party without Verizon Wireless' prior approval and consent.
NET_TC_060.00	Network Functionality - The application submitter will fully disclose and present documentation describing the application's network functionality. Any application that features network functions outside of the reported specifications may be subject to rejection pending Verizon Wireless' review.