CUBIC | Transportation Systems

The Cubic|NextBus Solution for Real-Time Passenger Information

Appendix A, Service Level Agreement

August 2018

Trademarks

Introduction

This Service Level Agreement defines the terms of service as it pertains to the Cubic NextBus Transit Management as a Service (TMaaS) platform for providing passenger information and services that the Customer may utilize towards to operations of its transportation and/or transit systems.

Service Commitment:

Cubic will deliver support and maintenance services in accordance with the following conditions:

System Availability (Back-Office System Uptime)				
Description	**Availability**	**Schedule**	**Time Zone**	**Criteria**
System Availability (excluding scheduled down-time)	99.9%	24 x 7	CST	a) Access to TMaaS portal, b) API available for delivering information to third-parties c) nextbus.com website up

Software Incident Response SLA				
Priority	**Response Time**	**Schedule**	**Time Zone**	**Target Measure**
P1	15 minutes	24 x 7	CST	90% responded to within each service period
P2	4 hours	08:00 to 18:00 Business Days	CST	90% responded to within each service period
P3	8 hours	08:00 to 18:00 Business Days	CST	90% responded to within each service period
P4	16 hours	08:00 to 18:00 Business Days	CST	90% responded to within each service period

Software Incident Resolution SLA				
Priority	**Resolution Time**	**Schedule**	**Time Zone**	**Target Measure**
P1	6 hours	24 x 7	CST	90% resolved within each service period
P2	1 day	08:00 to 18:00 Business Days	CST	90% resolved within each service period
P3	10 days	08:00 to 18:00 Business Days	CST	90% resolved within each service period
P4	30 days	08:00 to 18:00 Business Days	CST	90% resolved within each service period

Field Maintenance SLA				
Item	**Time**	**Schedule**	**Time Zone**	**Target Measure**
Respond to request for field maintenance support	30 minutes	24 x 7	CST	90% responded to within each service period

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Schedule Input and Maintenance				
Description	**Time**	**Schedule**	**Time Zone**	**Target Measure**
Acknowledge receipt of request for schedule/route change from customer	1 day	08:00 to 18:00 Business Days	CST	90% acknowledged within each service period
Complete configuration of system with new schedule/route changes (after acknowledgement) - manual entry	4 weeks	08:00 to 18:00 Business Days	CST	100% changes completed in each service period
Complete configuration of system with new schedule/route changes (after acknowledgement) - GTFS	2 weeks	08:00 to 18:00 Business Days	CST	100% changes completed in each service period

Measurement method

In order to avoid periodic and intermittent fluctuations, a downtime period may begin after observing one to five consecutive minutes of downtime and end when services are restored. Furthermore, downtime must affect core functionality to qualify as a Service Outage.

Communication Protocol

Cubic will communicate via email unless otherwise agreed upon in writing. Customer will provide contact names, email addresses, and phone numbers for Cubic to use for communication (the "**Communication Protocol**").

Service Desk/Technical Support

Cubic will also provide telephone and email access to Customer personnel for Cubic's Technical Support Service Desk. The Service Desk will provide access to non-automated support 24x7x365 for incident reporting, including requests for defect analysis, troubleshooting, clarification of applicable documentation, feature/function explanation, systems monitoring, and various other technical support activities, as required, for issues with the Services.

Customers can report problems in two (2) ways:

(1) calling a toll-free phone number 1-877-NextBus (877-639-8287); and

(2) sending an email to report issues. E-mail: support@nextbus.com.

Both venues of support are available 24 hours per day, 7 days per week. Please note the SLA response times above are predicated on customer support requests being made via the NextBus toll-free phone number 1-877-NextBus (877-639-8287).

The Service Desk agent will log in all incoming calls, assign a ticket number, and provide Level 1 Support which entails basic support and troubleshooting, such as password resets, break/fix instructions, ticket routing and escalation to Level 2 and Level 3 support.

Level 2 Support entails break/fix, configuration issues, troubleshooting, and software installations. If necessary the Level 3 support, if it is out of their skill set or ability to solve.

Level 3 Support involves troubleshooting, configuration, database administration, and repair for server, network, infrastructure, Data Center, email, file shares, and other infrastructure issues.

Software Operation and Maintenance

Cubic will be responsible for the operation and availability of the back office applications. Cubic will provide updates for the service as required ensuring the services continue to meet the Service Level SLAs, deliverables and requirements as defined herein. The Updates will apply to the entire hosted system environment. From time to time, Cubic may schedule intentional downtime for system maintenance or upgrades. Cubic will strive to minimize downtime for maximum availability of the Services.

Cubic reserves the right to perform regularly-scheduled maintenance of the platform during non-core business hours. Non-core business hours are defined as 12:00 am to 4:00 am (Pacific Time Zone). Cubic maintains a standing scheduled maintenance window of either 12:00 am – 4:00 am (Pacific Time Zone) or 2:00 am – 6:00 am (Pacific Time Zone) once a month on Sunday (“Scheduled Downtime”). Cubic may schedule additional Scheduled Downtimes outside of the current once-a-month schedule by providing notification to Customer at least three (3) business days in advance; this notification will be provided via the agreed upon Communication Protocol to designated support representatives.

Additionally, any downtime caused by factors outside of Cubic’s reasonable control do not factor in to the Monthly Uptime Percentage calculation, including any force majeure event, Internet service or cellular provider availability outside of Company’s platform, any downtime resulting from outages of third party connections or utilities, and actions or inactions of the Customer (“Excluded Downtime”).

System Reliability

Data Backup and Repository

Cubic will use industry best practices for cloud-based database backups and archiving. This backup includes, but is not limited to, vehicle location (AVL) and calculated arrival data, and does not include Customer Personally Identifiable Information, which is stored online for six (6) months and then is moved to a Cubic-hosted archive system or Amazon Web Service (“AWS”) cloud eco-system which serves as a cold storage.

System Security

Cubic will maintain information security policies and procedures that cover operations and maintenance of the back office cloud environment in accordance with industry best practices, and state and local laws.

The Cubic Information Security Management System (ISMS)

Cubic will follow standard Information Technology Infrastructure Library (ITIL) processes for incident, change and problem management in accordance with Cubic's ITIL process guides and its associated ISMS for security management where appropriate.

Cubic will not be held liable for a breach or compromise that is initiated by insecure endpoints or infrastructure that is the Customer's responsibility.

System Hosting

The Cubic NextBus systems will be hosted in the AWS cloud. The systems will be configured with high availability utilizing the features of AWS to maintain the maximum system availability. Cubic will be responsible for provisioning of the back office system within the cloud-based infrastructure including all computer, networking, communications, and application installations. Cubic will provide all necessary internal communications and hosting space to support the installations and will be responsible for all back end operations and maintenance. Cubic will provide the application as a service.

System Monitoring

NextBus TMaaS utilizes a number of different monitoring techniques, processes and tools that are integrated into our ITSM tool suite (ServiceNow) for automated alerting, reporting and Incident Management.

Supported Applications and Services

Updates will occur at Cubic's discretion and direction as it deems necessary to maintain all the deliverables and requirements stated in the TMaaS system. Updates may also include a software release to the back office to include bug fixes, enhancements and new features and could contain other projects fixes/enhancements which are the result of a generalized maintenance efforts at Cubic.

Cubic reserves the right to update services and applications for security and enhanced performance while maintaining the SLAs defined herein.

Cubic shall provide Maintenance and Support Services in an efficient manner by properly qualified individuals.

Definitions and Interpretation

"Automatic Fare Collection System" or "AFCS" means the system of front end terminals, communications, and back office processing software systems that manage devices, control card issuance, perform transaction processing, and generate/maintain operating data.

"Availability" means the continued access and up time of the Passenger Information Systems and the ability for Customer and passengers to make use of its functionality.

"AVL System" means Automatic Vehicle Location system.

"AVAS" means Automated Voice Announcement System.

"AWS" means Amazon Web Services, Inc. which is a subsidiary of Amazon.com that provides on-demand cloud computing platforms to individuals, companies and governments, on a paid subscription basis.

"CAD" means computer-aided dispatch.

"Cardholder" means the holder of a fare media device capable of holding a valid fare product or credential and presenting it for processing to a fare terminal.

"Current Version" means the Services solution available to provide the services to Customer at the date the Agreement is signed.

"Documentation" means (a) the written, printed, electronic or other format materials published or otherwise made available by Cubic that relate to the functional, capabilities of the Cloud Services; (b) documentation pertaining to the content of any Cloud Services solution Updates.

"Electronic Displays" means displays located in Customer's bus shelters and platforms that inform Passengers regarding the arrival times of Vehicles.

"Fare Product" means a valid fare instrument that can be loaded to a contactless smart card, the secure element, or the account based processing system. Fare products may include closed loop stored value, single ride tickets, ride books, or period passes.

"Global Positioning System" or "GPS" is a satellite based navigational system that allows Customer Vehicles to be tracked.

"GOC" means the Global Operations Center and is comprised of the Service Desk and IT Operations Support.

"GTFS" means General Transit Feed Specification and is a common format for public transportation schedules and associated geographic information.

"Local Hardware" means hardware provided by Cubic to Customer that is required to provide the software services.

"Mobile Application" means the Cubic application components that are deployed on the mobile phone to alert

Passengers to the location of specific Customer Vehicles.

"NextStop" is Cubic's proprietary Automated Voice Announcement System which announces the next stop on a transit vehicle.

"Service Desk" or **"Technical Support Service Desk"** means the component of the Cubic Global Operations Center that provides help desk support for customers around the world.

"Patrons" or "Passengers" refers to members of the public using Customer's services.

"Route" means the exact travel pattern taken by each Customer Vehicle, with the same scheduled stops each time the route is travelled. Any deviation from the travel pattern or stops will be a new route.

"RTPI" means Real-Time Passenger Information System

"Software" means the Cubic|NextBus Passenger Information Systems propriety software solution computer software components that are utilized to provide the services to Customer as part of this Agreement.

"Software-as-a-Service", "SaaS" or "Service" means the capability provided by Cubic to the Customer to use the proprietary software running in the cloud infrastructure on a subscription basis. The technical and professional activities required for establishing, managing, and maintaining the Cloud environments are under the control of and are the responsibilities of Cubic.

"TMaaS" means Transit Management as a Service.

"Upgrades" means changes to the Software utilized by Cubic to add new functionality to the Software which become available at Cubic's catalog price.

"Updates" means changes to the Software, which when Cubic considers necessary, will be utilized by Cubic to provide the Services to Customer, whether for the purpose of correcting an issue such as a bug fix in the Software or enhancing the existing functionality of the Software.

"Vehicles" means Common Carrier Vehicles owned and/or operated by the Customer and are typically available to the general public for transportation.