## SPECIFIC TERMS AND CONDITIONS - SOFTWARE

## 1.0 SOFTWARE REPRESENTATIONS AND WARRANTIES:

## 1.1 Compatibility and Operations Warranty

- (a) Supplier warrants that no Upgrade shall require any changes or alteration to any data, interfaces, programs, operating systems, operating environments or other equipment, software or information in order to obtain the full functionality, performance and compliance with this Agreement and the Documentation that was or should have been obtained from the Software before the installation of the Upgrade.
- (b) Supplier agrees to cooperate and reasonably share with Lumen and Lumen's other vendors interoperability and open standards information to facilitate timely, open and industry wide interoperability standards, including the clear and open disclosure of open standard-based versus proprietary features.
- (c) Supplier represents and warrants that: (i) all Software will perform and function correctly without repeated interruption; (ii) the Software is free of significant programming errors; and (iii) no hardware or software is or will be required for the correct operation of the Software except as expressly specified in the applicable Order.

## 1.2 Virus Warranty/Malicious Technology/Unmitigated Vulnerability

## (a) Viruses.

Supplier warrants that the Purchases will be free from any malicious third party code including, without limitation, viruses, worms, Trojan Horses or other such items that may threaten, infect, damage, disable or otherwise interfere with the permitted use of the Purchases ("Virus"). Supplier will test each element of the Purchases, including each Upgrade, before delivery to Lumen to ensure that it is free of any Virus. If Lumen notifies Supplier that it has reason to believe that a Virus has infected a Purchase, Supplier will promptly assist and work continuously with Lumen, at Lumen's direction and at no charge, until, in Lumen's determination, the Virus has been eliminated.

# (b) Malicious Technology.

Supplier warrants that the Purchases will not: (i) contain any Malicious Technology; (ii) contain any files, routine, functions or features that can disable or destroy any functionality of the Purchases; (iii) monitor Lumen's use of the Purchases; (iv) replicate, transmit or activate the Purchases or portions thereof without, in each case, the express prior consent of a person operating the computing equipment on which it resides; or (v) alter, damage or erase any data or computer programs without in each case, the express prior consent of a person operating the computing equipment on which it resides. Supplier will not install, use or execute any software on any Lumen equipment without Lumen's prior written approval. Supplier acknowledges that it does not have any right to electronically repossess or use any self-help related to the Purchases. If the Supplier is in breach of this subsection, no "right to cure" period will apply. Lumen reserves the right to pursue any available civil or criminal action against Supplier for violation of this subsection. "Malicious Technology" means any software, electronic, mechanical or other means, device or function (e.g., key, node, lock, time-out, asset protection device,

"back door," trapdoor," "booby trap," "drop dead device," "data scrambling device," "Trojan Horse,") that would allow Supplier or a third party to: (x) monitor or gain unauthorized access to any Lumen system; (y) use any electronic self-help mechanism; or (z) restrict, disable, limit or impair the performance of any Software, Purchase or Lumen system.

# (c) Unmitigated Vulnerability.

Supplier warrants that during the term of the Agreement the Purchases will not contain an Unmitigated Vulnerability. If an Unmitigated Vulnerability has been published, Supplier shall, at the Supplier's expense: (i) promptly provide to Lumen software patches, hot-fixes, or system updates to correct the Unmitigated Vulnerability; and (ii) prior to release of a patch as provided in subclause (i), provide risk mitigation procedures, compensating controls, configuration or modification instructions. "Unmitigated Vulnerability" means any vulnerability in the Purchases that could allow a third party to exploit, hack, crash or otherwise gain unauthorized access to or control over the Purchases and includes, without limitation, any: (x) failure to adopt applicable industry best practices relating to authentication, encryption and security; (y) susceptibility to being hacked, broken into or compromised; or (z) reference by the Carnegie Mellon CERT® Coordination Center at www.cert.org. Any Unmitigated Vulnerability shall be deemed to be Severity 1 or equivalent under the Support Services.

- (d) Supplier will scan the Purchases for Malicious Technology and Unmitigated Vulnerabilities prior to delivery to Lumen. The Supplier will show that the most recent, industry-standard signature files available, as of the applicable delivery date, were used to perform the security scan. The Documentation provided by Supplier should include a description of applicable security testing, audit trails of anti-virus detection and vulnerability scanner tolls, with date/time of the signature file used for each scan.
- (e) Supplier will logically segregate all Lumen data from Supplier's data and other Supplier customers' data.

## 2.0 OPEN-SOURCE SOFTWARE

"Open Source" means software that requires as a condition of use, modification or distribution that the Software or any other software incorporated into, derived from or distributed with such Software be: (i) disclosed or distributed in source code form; (ii) licensed for the purpose of making derivative works; or (iii) licensed or redistributed at no charge.

No Open Source will be included in any Software except where Supplier: (x) discloses in the applicable Order all Open Source included in the Software; (y) expressly identifies each item of Open Source as "Open Source"; and (z) discloses the applicable license for each item of Open Source.

If any Open Source is incorporated into, contributed, or combined with any Services and Purchases, whether disclosed to Lumen or not, Supplier will comply, and ensure Lumen's compliance, with the licensing requirements of the associated Open Source, including if Lumen sells or otherwise makes the Services and Purchases available to Customers. If Lumen's compliance is not possible through Supplier's actions alone, Supplier will, at its expense, facilitate Lumen's compliance with such license requirements. For clarity, nothing in the Agreement or otherwise shall modify, amend, supplement, prohibit or limit Lumen's ability to separately obtain and use Open Source pursuant to any available license terms.

#### 3.0 UPGRADES: SUPPORT

Supplier will promptly deliver each Upgrade to Lumen, including all related Documentation. If Lumen does not implement an Upgrade, Supplier will continue to provide Support Services for the version of the Software in use by Lumen.

Supplier will make Support Services commercially available to Lumen, on an annual basis, for at least five (5) continuous years after any Order for Software or its most recent Upgrade. Supplier will give Lumen two (2) years' prior written notice before terminating availability of Support Services for the Software. Unless expressly provided otherwise in the applicable Order, the per unit increase annually in the fee for Support Services on a per unit basis will not exceed the increase in the Consumer Price Index for All Urban Consumers (CPI-U) or three percent (3%), whichever is less, for the most recent year preceding the increase in the fee.

Support Services will include, at a minimum (and even if not provided to any other customer(s)), the obligation of Supplier to promptly: (i) correct any failure of the Software to conform to the provisions of this Agreement or the Documentation; (ii) respond to Lumen technical support inquiries; and (iii) deliver to Lumen all Upgrades.

Supplier shall notify Lumen in writing three (3) months prior to releasing any Upgrades; provided that in the case of security releases and exigent circumstances, Supplier shall provide such written notice as soon as commercially reasonably practical.

## 4.0 DELIVERY; INSTALLATION

Supplier will deliver the Software by electronic download, unless otherwise specified in the applicable Order, in which case Supplier will pack, mark, label, document and ship all Software in accordance with Lumen's instructions and accepted industry standards. Further, Supplier will promptly and diligently install and configure the Software ordered in connection with the Agreement, unless otherwise specified in the applicable Order. Supplier will provide appropriate documentation to support invoices with respect to delivery charges.

#### 5.0 SOFTWARE LICENSE

## 5.1 Subscription License Grant

For Software licensed on a subscription basis as clearly and unambiguously set forth in the applicable Order, Supplier grants to Lumen and Lumen's Affiliates a worldwide, unrestricted, irrevocable (during the subscription term), transferable, non-exclusive right and license during the subscription term to install, display, perform, use, modify, reproduce, execute, distribute and create derivative works of the Software, on any one or more devices and at any one or more locations, and in any number of production and non-production instances. Upon any termination or expiration of the applicable Order and for a maximum period of 12 months thereafter, Supplier will, upon Lumen's request, continue to provide the Software (at the same fees that Lumen was paying prior to the notice of termination of the Order), and any new services requested by Lumen that may be required for the Software to continue without interruption or adverse effect and to facilitate the orderly transfer of Software to Lumen or a third party service provider, as applicable.

# 5.2 Perpetual License Grant

Unless expressly provided otherwise in the applicable Order, for all other Software not licensed on a subscription basis, Supplier grants to Lumen and Lumen's Affiliates a worldwide, unrestricted, fully paid-up, perpetual, irrevocable, transferable, non-exclusive right and license to install, display, perform, use, modify, reproduce, execute, distribute and create derivative works of the Software, on any one or more devices and at any one or more locations, and in any number

of production and non-production instances. In the event Supplier provides license keys for perpetual licenses, Supplier shall ensure that such license keys never expire.

## 5.3 License Grant to Service Providers

The licenses granted to Lumen and Lumen's Affiliates in this Section 5 are also licenses granted to Lumen's and Lumen's Affiliates' third party contractors, temporary resources, agents and third party providers of managed services, webhosting services, application service provider and application infrastructure service providers where the foregoing are acting for or on behalf of Lumen or a Lumen Affiliate.

# 5.4 Acquiring Rights from Third Parties.

Supplier is solely responsible for securing any and all authorizations, consents, approvals and licenses from third parties that are necessary for provision and performance of the Software, and sufficient to grant the rights specified herein with respect to the Software.

## 5.5 Availability

If Supplier removes any features or functionality from the Software and subsequently offers those features or functionality in a new or different product (whether directly or indirectly or through a third party), then the license granted in this Section 5 will be deemed to include: (i) the portion of those new or different products that contain the original features; or (ii) if those features cannot be separated out or disabled, the entire product. If Supplier stops licensing the Software other than as bundled or otherwise combined with other software, the Software license will be deemed to include that other software. If the Software is a suite or other combination of software products, and Supplier elects to unbundle or otherwise separately license those products, the Software license will be deemed to include all of the products containing the functionality originally licensed to Lumen. There will be no additional charge for changes to the scope of the Software license under this Section.

## 5.6 Title; Restrictions

As between Lumen and Supplier, title to and ownership of the Software will remain with Supplier. Without Supplier's prior written consent and except as permitted under applicable law, Lumen will not reverse compile or disassemble any part of the Software or remove, obscure or deface any proprietary notice or legend contained in the Software. All rights and licenses granted under or in connection with the Agreement are, and will be deemed to be for purposes of Section 365(n) of the U.S. Bankruptcy Code, licenses of rights to "intellectual property," as defined in Section 101 of the U.S. Bankruptcy Code.

## 5.7 Survival of Licenses

Software licenses granted under this Agreement shall survive any expiration or termination of this Agreement and continue according to their terms.

## 5.8 Right to Make Copies

Supplier will provide Lumen with master copies of the Software and Documentation, from which Lumen may make a reasonable number of copies for all uses and purposes authorized under this Agreement, including without limitation backup, disaster recovery, production use, and testing and other non-production purposes. Lumen will reproduce Supplier's proprietary and copyright notices on any copies of the Software and Documentation.

#### 5.9 Relocation

Lumen has the right to relocate the Software, either temporarily or permanently, at no additional charge, to any one or more devices, virtual environments, systems, hardware, configurations and

sites, whether or not in existence on the Effective Date, and without notice to Supplier. If the applicable Order expressly limits use of any Software to specified site(s), device(s) or instance(s), or to a certain number of site(s), device(s), instance(s) or copies, Lumen will have the right to maintain parallel operations in the process of relocating the Software, at no additional charge for the relocation, for the period of time reasonably necessary to complete the relocation, provided such parallel operations do not exceed 180 days. In addition, Lumen may transfer the Software into its internal environment, to its own cloud hosted environment, or to a contracted or other third party's cloud hosted environment at any time in its sole discretion. Such transfer will not affect Supplier's obligations under this Agreement including, without limitation, the obligation that Supplier maintain and update the Software.

#### 6.0 LICENSE MANAGEMENT

# 6.1 Management Procedures

Upon delivery of the Software, Supplier will provide Lumen with documented procedures that Lumen can use to accurately ascertain the number of licenses of Software installed and used within the Lumen environment. The procedure, at a minimum will include (i) a query to determine that the Software is installed, including license key information, if keys are required, and (ii) a query that can determine if and the extent to which the Software is in use (e.g. ascertain number of logins to the Software). If Supplier alters the documented procedures described in this Section, Supplier will promptly update Lumen of the changes.

# 6.2 Fingerprinting

Upon request, Supplier will provide Lumen with the Fingerprint of any of its products, whether or not licensed by Lumen. If a Fingerprint does not exist, Supplier will provide Lumen with the assistance necessary to create automated scripts that are capable of identifying the existence of any full or partial installation of any of Supplier's products, whether or not licensed by Lumen. "Fingerprint" means the characteristics and attributes related to a program or a suite of programs, executable software and/or data files that are unique to that program or suite of programs that can be used to query whether it is installed and, if installed, whether it is in use (i.e. provide historic usage information).

## 7.0 ACQUISITIONS; DIVESTMENTS

Any entity that becomes a Lumen Affiliate ("New Lumen Affiliate") during the term of the Agreement and which is also a licensee of the Software or other Supplier software that is substantially similar to the Software may transfer such licenses to Lumen under this Agreement, and Supplier hereby consents to such transfer at no additional cost. Should Lumen or a Lumen Affiliates sell, transfer, spin-off or otherwise divest itself of the equity ownership or substantially all of the assets of any division, affiliate, or business unit (all jointly hereafter referred to as "Business Unit"), Supplier will continue to make the Software available to the Business Unit, pursuant to the terms of the Agreement, for the longer of: (i) six (6) months; or (ii) the remaining license term. This right applies to and includes, without limitation, Lumen's and Lumen's Affiliates' third-party contractors and agents, and the right to use the Software for and in connection with Transition Services (as defined below) and the provision of managed services, webhosting services and application service provider and application infrastructure provider services by Lumen or its Affiliates to any non-affiliate. "Transition Services" means services provided in connection with any acquisition or disposition of any Affiliate, business unit or asset(s) of Lumen or any Lumen Affiliate. In no event will Lumen or a Lumen Affiliate be liable in any manner for any of the obligations or liabilities of any such divested Business Unit after divestiture.

## 8.0 DATA RETENTION

For Software hosted by or on behalf of Supplier, upon any termination or expiration of the subscription term for Software, Lumen may at its election and without additional cost: (i) retain in its systems the data provided or obtained in connection with such Software that are integrated or commingled with Lumen data; and (ii) use, copy, modify and transmit such data for its business purposes. Further, Supplier will provide to Lumen at no additional cost: (y) all Lumen data, in a format designated by Lumen; and (z) any other information, including data dictionaries and data developed during the subscription term of the Software that Lumen deems necessary or desirable to use the Lumen data or convert the Lumen data for use on another system.

# EXHIBIT #1 TO SPECIFIC TERMS AND CONDITIONS – SOFTWARE

#### HOSTING SERVICES DESCRIPTION

- 1.0 Hosting Services; Data Center
  - 1.1 "Hosting Services" means the information technology services provided by Supplier to Lumen that makes the Software available to Lumen.
  - 1.2 The location of the data center that will be used to host the Software is as follows:

Primary data center: Name of Data Center

Address City, State, Zip

Back-up data center: Name of Data Center

Address City, State, Zip

In the event that the location of the data center used to host the Software is changed, Supplier shall provide Lumen with prior written notice of the change and disclose the address of the new facility. Unless approved in writing by Lumen, any such new primary facility shall be located within the United States. The Data Centers referenced above are locations that are approved by Lumen.

In the event the Supplier changes the foregoing hosting provider, Supplier shall provide Lumen with prior written notice of the change and disclose the name and location of the replacement hosting provider. The replacement hosting provider shall be a reputable hosting provider comparable to the Supplier's current hosting provider. Unless approved in writing by Lumen, the replacement hosting provider shall be located within the United States.

# EXHIBIT #2 TO SPECIFIC TERMS AND CONDITIONS – SOFTWARE

#### SERVICE LEVEL OBLIGATIONS

## 1.0 SERVICE LEVEL OBLIGATIONS

Supplier will meet the applicable Service Level Standards and Problem Resolution/Response Standards (as such terms are defined below). In performing services for Lumen, Supplier's level of performance shall be at least equal to or exceed the specific Service Levels set forth herein at all times during the Term.

## 2.0 SERVICE LEVELS

The following definitions apply for Website availability:

- 2.1 "Downtime Minutes" shall mean the total number of minutes in the reporting month that the Software(s) were not available to authorized users for normal use. The calculation of Downtime Minutes excludes Maintenance Minutes.
- 2.2 "Maintenance Window" shall mean the total minutes in the reporting month represented by the following day(s) and time(s) during which Supplier can maintain the Services: daily between the hours of 1:00 AM EST and 4:00 AM EST, unless other hours have been specifically approved by Lumen.
- 2.3 "Maintenance Minutes" shall mean the total minutes in the reporting month represented by the "Maintenance Window". Supplier shall provide five (5) business prior written notice regarding any "Scheduled Downtime." Furthermore, in no event shall such Scheduled Downtime exceed fifteen (15) hours per month, unless specifically approved by Lumen
- 2.4 Scheduled Uptime means the total number of minutes in the reporting month less the total number of minutes represented by the Scheduled Downtime.

#### 3.0 SERVICE LEVEL STANDARDS

Services will be available to authorized users for normal use 100% of the Scheduled Uptime.

- 3.1 Calculation. (Actual Uptime / Scheduled Uptime) \* 100 = "Percentage Uptime" (as calculated by rounding to the second decimal period.)
- 3.2 Performance Credit
  - a) Where Percentage Uptime is greater than 99.8%, no Performance Credit will be due to Lumen.
  - b) Where Percentage Uptime is equal to or less than 99.8%, Lumen shall be due a Performance Credit in the amount of 10% of the Services Fees (as calculated on a monthly basis for the reporting month) for each full 1% reduction in Percentage Uptime.
- 3.3 Example Calculation
  - a) Assuming reporting month is February 2014 (40,320 minutes).
  - b) Assuming a Maintenance Window of Sundays from 1:00 am EST to 3:30 am EST (equals Scheduled downtime of 600 minutes).
  - c) Scheduled Uptime equals 39,720 (total minutes of 40,320 in February 2014 less 600 minutes of Schedule Downtime).
  - d) Assuming Actual Uptime of 39,120 minutes in February 2014. A Percentage

- Uptime is calculated as follows: (39,120 / 39,720) \* 100 = 98.49%
- e) The threshold of 99.8% less the Percentage Uptime of 98.49% = 1.3%
- f) The difference is greater than a 1% reduction but is less than a 2% reduction; therefore, Subscriber is due 10% of the Services Fees as a Performance Credit.

Lumen and Supplier agree that Supplier's failure to maintain the availability standards in this section will cause Lumen to suffer certain damages, including operational dysfunction, competitive disadvantage and administrative burdens. Lumen and Supplier acknowledge and agree that such damages are not capable of precise determination and would be difficult to measure. The parties agree that the Performance Credit is a reasonable estimate as of the date hereof of those certain damages Lumen will incur and is not a penalty. The parties further acknowledge and agree that the Performance Credit shall not be considered consequential, incidental or special damages for purposes of the Section of this Agreement titled "Limitation of Damages" and thus the waiver in that section shall not apply to the Performance Credit.

Should Supplier fail to meet the Percentage Uptime criteria of 99.8% for three (3) months in a twelve (12) month period, Lumen may, in addition to receiving the Performance credit, terminate the Agreement by providing notice of termination. In such case, Supplier will refund to Lumen any prepaid fees for the remainder of the Software subscription term(s) following the date of termination. Further, should any Upgrade not interoperate with previous functionalities of prior versions or cause loss in functionality, Lumen may terminate the Agreement by providing termination notice and Supplier will refund to Lumen any prepaid fees for the remainder of the Software subscription term(s) following the date of termination.

## 4.0 PROBLEM RESOLUTION/RESPONSE STANDARDS

#### Definition and Classification of Problems

"Severity" is the assessed possible risk or effect of a problem on Customer's business operations. All notifications, escalations and standards for responding to problem are set by Severity.

As used below, the term "Problem" shall mean any problem inquiry or request relating to the Software, Problems shall be initially classified by Lumen in accordance with Supplier's standard Severity level classifications, as follows:

Severity Level	Response Time	Resolution Time
"Severity 1" is an error or other emergency condition that causes the Software to cease operating, severely impairs its normal operation which is classified as System Down. "System Down" is defined as any Software, which is not available for use, or such Software is otherwise not fully operational such that Lumen Confidential Information residing	Within 30 minutes of Lumen's call or 24 hours from receipt of email.	4 hours from the time the issue was first reported.

within such Software cannot be accessed by end users, the data is corrupt or missing.		
"Severity 2" is a problem classified as "Critical Function Failure" where critical functions of the site experiences an outage.	Within 60 minutes of Lumen's call or 24 hours from receipt of email.	24 hours. The resolution time of Severity 2 may include the following interim remedies: data correction by Supplier, workaround technique or software correction.  (i)Data correction — Supplier will take all reasonable measures to correct the data in the database to resolve the issue.  (ii)Workaround Techniques — Supplier will provide the user with an alternate method to perform or accomplish the same task, until the issue is resolved in the next appropriate release of the software system.  (iii)Software Correction — Supplier will incorporate Severity 2 issue in the next software release contingent on discovery correction and qualification before code cutoff date for the current release, otherwise the correction will be scheduled for the next release.  (iv)Emergency Escalation — If Data Correction and Workaround Techniques do not provide a method for successful execution of critical functions, Supplier will perform an emergency repair within 40 hours of the invocation of Emergency Escalation.
"Severity 3" is a secondary application failure which shall be defined as any failure of the system to perform as documented in the online help system or users' manual in a manner that inhibits effective utilization of the system but does not meet the criteria defined for Severity 2 above. This class of problem will be submitted to the IT organization for evaluation and resolution no later than the next appropriate release of the software system.	Within 60 minutes of Lumen's call or 24 hours of receipt of email.	The problem will be resolved within 72 hours. The resolution of Severity 3 issues may include the following interim remedies: work around technique or software correction scheduling. (i)Workaround Technique – Supplier will provide the user with an alternate method to perform or accomplish the same task, until the issue is resolved in the next appropriate release of the software correction Scheduling – Supplier will incorporate the Severity 3 issue in the software development lifecycle for repair. An estimated time of delivery will be provided to the Customer within 10 business days.
"Severity 4" is any non-critical, remedial maintenance to any URL; no performance	Within 24 hours of Lumen's call or 24 hours of receipt of email.	The problem will be reviewed within 10 business days. The resolution of Severity 4 issues

degradation or component	will only occur by software
failures; Lumen Confidential	correction.
Information remains fully	
accessible. This class of	
problem will be submitted to the	
IT organization for evaluation	
and resolution of no later than in	
the next appropriate release of	
the system.	

#### 5.0 PROBLEM RESOLUTION DETAILS

For purposes of the Problem Resolution service levels, a problem shall be deemed resolved when the trouble ticket is, in good faith, identified as resolved by Supplier in Supplier's trouble ticket system; provided, however, following notification to Lumen that the problem has been resolved. If Lumen determines that the problem has not been resolved to its reasonable satisfaction, the trouble ticket for such problem shall be re-opened (with a start time as of Lumen's notice of dissatisfaction) and the additional resolution time shall be added to the initial resolution time logged by Supplier for that problem.

Upon resolving a Severity 1 or 2 problem, Supplier will immediately notify Lumen of the resolution and communicate the details of the problem description and resolution to Lumen. With respect to Severity 3 and 4 problems, Supplier shall notify Lumen within one (1) business day of the resolution of such problems and shall also communicate the details of the problem description and resolution to Lumen.

#### **Exclusions**

Supplier is not responsible for the following outages:

- 1) Periods of Scheduled Downtime as described above.
- 2) Outage due to system administration, commands, file transfers performed by Customer representatives outside of published guidelines.
- 3) Outage due to Lumen breach of material obligations under the Agreement.
- 4) Other outages due to inability of Lumen to access the internet and/or Supplier websites, where the inability to access the website is not the result of a failure by Supplier or its website.

#### 6.0 SERVICE LEVEL REPORTING

Except as otherwise expressly provided herein, all Service Levels shall be measured and reported on a monthly basis.

6.1 Supplier shall submit to Lumen by the 10<sup>th</sup> day of each month during the Term a Monthly Performance Report, which shall document Supplier's performance with respect to each Service Level during the previous month and explain deviations from the Service Levels, if any, including a plan for corrective action where appropriate. Such report shall specify each Service Level that Supplier failed to meet.

# EXHIBIT #3 TO SPECIFIC TERMS AND CONDITIONS – SOFTWARE

#### SOFTWARE DISASTER RECOVERY PLAN

Supplier will maintain Disaster Recovery Policy and Procedures documents that will be made available to Lumen upon Lumen's request. Supplier will advise Lumen of changes to the Disaster Recovery Policy and Procedures documents and make available to Lumen these revisions upon request.

The Disaster Recovery Policy and Procedures documents will cover cases where the current production facility becomes totally un-usable with partial loss or total loss of access to the existing production site equipment. Business operations will be restored within 24 hours of the total failure of the current production site.

Supplier will utilize the most recent off-site data back up as a minimum. Recovery systems and methodologies will provide production-like capability with marginal reduction in online performance and said systems and methodologies will be kept available until the production site is restored or alternate arrangements are made. Supplier's production site shall utilize a fail-over database server and an automated backup system that does automated daily scheduled backups. The fail-over database will be automatically updated every 30 minutes with changes to the live database.

This disaster recovery plan shall provide the following:

## 1) Daily schedule

- a. Backups of database files or incremental of transaction history.
- b. Incremental backup of changes to system and non-data areas.
- c. Backup system rotated for following evening activity.
- d. Daily backups are maintained for 60 days.

## 2) Weekly/Monthly schedule

- a. Database systems are stopped to perform an off-line backup of both the system and the database.
- b. Database is started as soon as backup is complete.
- c. Backup files are copied to media for off-site storage.
- d. Monthly backups are maintained for 14 months.

# 3) Off-Site storage

Daily off-site tape storage.

## 4) Disaster Recovery Testing

On an annual basis, Supplier completes a full test of the backup and disaster recovery plan. The restoration of Lumen's disaster recovery environment takes place at Supplier's facility with validation of data integrity and system function. Supplier will provide to Lumen a copy of the disaster recovery test results.

## 5) Off-Site Restoration

In the rare occurrence of a catastrophic event, the entire system must be restorable and can be restored within 1 business day at an alternate location. Ultimately, the data that may be lost includes the time frame between the last offsite tape removal and the disastrous even date which Supplier targets to be limited to one day.