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1. Superna Eyeglass Agreements

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1.1. Superna Eyeglass EULA and Support Services Agreement

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Master Software License and Support Agreement

This Master Software License and Support Agreement (the “**License Agreement**”) is a legal agreement between you (“**you**” or “**Company**”) and Superna, LLC, a Delaware Limited Liability Company with its principal place of business located at 225 Cedar Hill St., Ste. 200, Marlborough, MA 01752 (“**Superna**”). Your right to use the Superna software product identified in an Order Email is set forth in this License Agreement.

THIS IS A LEGAL AGREEMENT. BY ACCESSING AND USING THE LICENSED PRODUCT, YOU ARE ACCEPTING AND AGREEING TO THIS LICENSE AGREEMENT ON BEHALF OF YOURSELF OR THE

ENTITY YOU REPRESENT IN CONNECTION WITH SUCH ACCESS OR USE. YOU REPRESENT AND WARRANT THAT YOU HAVE THE RIGHT, AUTHORITY, AND CAPACITY TO ACCEPT AND AGREE ON BEHALF OF COMPANY. IF YOU DO NOT AGREE WITH ANY OF THE TERMS SET FORTH HEREIN, YOU SHOULD CEASE ACCESSING OR USING THE LICENSED PRODUCT IMMEDIATELY.

SECTION 8 DESCRIBES IMPORTANT LIMITATIONS OF THE LICENSED PRODUCT AND OPTIONAL FEATURES, ESPECIALLY IN CONNECTION WITH IMPLEMENTATION, SYSTEM DESIGN, DATA LOSS AND FAILOVER OF DATA.. PLEASE READ THIS SECTION CAREFULLY. BY ACCESSING OR USING THE LICENSED PRODUCT, OR CONTINUING TO DO SO, YOU ACKNOWLEDGE AND AGREE TO THESE LIMITATIONS.

1. Definitions:

1.1 **Affiliate** means any entity which directly or indirectly controls, is controlled by, or is under common control with the subject entity.

"**Control**," for purposes of this definition, means direct or indirect ownership or control of more than 50% of the voting interests of the subject entity.

1.2 **Computer System** means the computer hardware equipment on which Company has elected to install and/or execute the Licensed Program.

1.3 **Device** means a physical hardware or virtual system that supports the IP protocol for communications and is recognized by the Licensed

Program as a manageable system. Such Devices may be physical, virtual or a manageable component of a larger system. Examples of Devices that may be recognized by the Licensed Program include but are not limited to: computer servers, computer clients, virtual machines, hypervisors, hypervisor management servers, blade servers, converged infrastructure devices, routers, switches, virtual switches, access points, firewalls, load balancers, wireless access points, vpn concentrators, network appliances, virtual network device instances, storage devices, storage appliances, point of sale systems, printers, phone switches, telecommunications equipment, UPS, power devices, industrial control systems and other systems supporting IP communications discovered by the Licensed Program.

1.4 Designated Storage Medium means a single physical hardware device or virtual system made available through a third party, such as Amazon® Simple Storage Service (Amazon S3™) (each a “**Cloud Provider**”), that supports the storage of files in the Amazon S3 storage object format or the Microsoft Azure blob format.

1.5 Documentation means the softcopy documentation that may be provided by Superna with the Licensed Program or in connection with the Maintenance and Technical Support Services, such as user manuals, guides, release notes, or online help information.

1.6 Effective Date means the date that you accept the terms of this License Agreement.

1.7 Error means a failure of the Licensed Program to materially conform to its Documentation, but excluding any nonconformity resulting from Company's: (a) misuse, improper use, or unauthorized modification of any Licensed Product; (b) Company's failure to

implement Updates or Upgrades; or (c) the combining of the Licensed Product with hardware or software other than the Prerequisites or other than as contemplated by the Documentation

1.8 **Fees** means the aggregate fees for the Licensed Program and Optional Features selected by Company, and for any Services.

1.8 **High Risk System** means a device or system for which it is reasonably foreseeable that failure of the device or system could lead directly to death, personal injury, or catastrophic property damage.

Without limitation, High Risk Systems may be required in critical infrastructure, industrial plants, manufacturing facilities, direct life support devices, aircraft, train, boat or vehicle navigation or communication systems, air traffic control, weapons systems, nuclear facilities, power plants, medical systems and facilities, and transportation facilities.

1.9 **Licensed Product** means, collectively, the Licensed Program any Licensed Program application program interface (“**API**”) and the Documentation

1.10 **Licensed Program** means the executable code version of the Superna software, and any Optional Features, identified in an Order Email. Licensed Program includes any Updates or Upgrades that may be delivered by Superna to Company during the Term, as defined in Section 5.1. Licensed Program does not include Prerequisites, as defined in Section 4.2, or Third Party Code.

1.11 **Maintenance and Technical Support Services** means those services described in Section 9 and Exhibit A, attached hereto and

incorporated herein by reference. The term Maintenance and Technical Support Services does not include Professional Services.

1.12 Optional Features means additional license key-enabled or other functionality of the Licensed Program that Company may acquire rights to use, as further described in Section 8.4.

1.13 Order Email means an email or other communication from Superna that may include one (1) or more of the following: (a) identification of the specific Licensed Program acquired by the Company; (b) the Authorized Use Limitation, as defined in Section 3.2, if any; (c) the Initial Support Period, as defined in Section 9.1, or any renewal Maintenance and Technical Support Period, as applicable; (d) the term of any Evaluation Period, as defined in Section 3.1; and (e) a specific Professional Service part reference number.

1.14 Professional Services means those services described in Exhibit B, attached hereto and incorporated herein by reference. The term Professional Services does not include Maintenance and Technical Support Services.

1.15 Services refers collectively to Maintenance and Technical Support Services and Professional Services.

1.16 System Data refers to data about Computer Systems, Devices, Designated Storage Media, and related software required by Superna to perform the Services for Company and may include, but not be limited to, documentation, test data, sample output storage device configuration data, Cloud Provider configuration, DNS names, and IP addresses of DNS, NTP, storage devices, and network subnets.

System Data also includes data collected by Superna regarding Company's usage of the Licensed Program and related Services.

1.17 **Third Party Code** means any code, libraries or other components included in the Licensed Program as set forth [here](#).

1.18 **Update** means a release of the Licensed Program that contains error corrections and/or minor functional enhancements.

1.19 **Upgrade** means a version of the Licensed Program that contains new or substantial functional enhancements.

2. Fees; Payments; Activation:

2.1 **Fees:** The Fees are due and payable by Company in accordance with the terms and conditions provided by Superna's authorized reseller. For any other amounts owed to Superna pursuant to this License Agreement, such payments shall be made in United States dollars, and if not paid within thirty (30) days of when due (or such longer period set forth in an invoice) will be subject to interest at the rate of eighteen percent (18%) annually, or the maximum amount allowed by applicable law if lower, calculated from the date when payment was due until payment is made. In addition, Company agrees to pay any reasonable cost of collecting any past-due amounts under this License Agreement, including but not limited to attorneys' fees and costs.

2.2 Taxes: The Fees for the Services do not include any excise, sales, use, value added or other taxes, tariffs or duties that may be applicable to the Services. When Superna has the legal obligation to collect such taxes, tariffs or duties, the amount of such taxes, tariffs and duties will be invoiced to Company, and Company will pay such amount unless Company provides Superna with a timely and valid tax exemption certificate (or similar document) authorized by the appropriate taxing authority and reasonably acceptable to Superna. All payments by Company for the Services will be made free and clear of, and without reduction for, any withholding taxes. Any such taxes which are otherwise imposed on payments to Superna will be Company's sole responsibility. Company will provide Superna with official receipts issued by the appropriate taxing authority or such other evidence as is reasonably requested by Superna to establish that such taxes have been paid.

2.3 Registration; Product Notifications: At its discretion, Superna may include features in the Licensed Program to prevent unlicensed use of the Licensed Program. You agree that Superna may do so. Upon receipt of an Order Email from Superna, Company shall be entitled to access or use Maintenance and Technical Support Services as described in Section 9.1. In order to activate the Licensed Program and register for Maintenance and Technical Support Services through the Superna website, Company must provide current, accurate Company email domains, product appliance identification or appliance ID, and other information requested by Superna as part of the Maintenance and Technical Support Services registration process

(collectively, “**Registration Information**”). Activation is complete when Company has entered a valid Licensed Program license key.

Company is responsible for maintaining the accuracy and completeness of Registration Information at all times that Maintenance and Technical Support Services are active. By providing Superna with the Registration Information you affirmatively opt-in to receive email communications from Superna with respect to product releases and advisories, new product announcements and training and marketing materials, such as links to webcasts (“**Product Notifications**”). Company may unsubscribe from Product Notifications at any time. However, you acknowledge that by unsubscribing from Product Notifications Company may not receive important information related to the Licensed Program and Maintenance and Technical Support Services.

2.4 Credentials: Company is responsible for maintaining the confidentiality of its credentials to access or use the Maintenance and Technical Support Services and, accordingly, will be fully responsible for all activities that occur utilizing such credentials including any unauthorized use. Company agrees to immediately notify Superna of any unauthorized use of Maintenance and Technical Support Services or any other breach of security with respect to the Licensed Program. Superna will not be liable for any loss or damage arising from Company’s failure to provide Superna with accurate Registration Information or to keep their access to the Maintenance and Technical Support Services secure.

3. License; Feedback:

3.1 Evaluation License: With respect to any Licensed Program identified in an Order Email as evaluation or demonstration software, Superna hereby grants, and Company hereby accepts, a limited, revocable, non-exclusive, non-transferable license to use the Licensed Product, and the Documentation supplied with such Licensed Program, solely for internal non-production testing, evaluation, and demonstration purposes, and not for commercial use (the “**Evaluation License**”), and the license grant set forth in Section 3.2 shall not apply.

Each Evaluation License shall be limited to use by Company for thirty (10) days, unless otherwise set forth in the Order Email (the “**Evaluation Period**”) and shall be subject to the license restrictions set forth in Section 3.3. Any Evaluation License granted pursuant to this Section 3.1 may include limited features and functionality at Superna’s sole discretion and is limited to on one (1) Designated Storage Medium during the Evaluation Period. Company may not designate a new Designated Storage Medium during the Evaluation Period.

Notwithstanding anything to the contrary in an Order Email or other communication between the parties, Superna will not and does not grant any right to make production use of the Licensed Program unless Company acquires a paid license to use the Licensed Product.

The Company acknowledges and agrees that in connection with any Evaluation License, notwithstanding anything to the contrary set forth in this License Agreement:

- a) THE LICENSED PROGRAM IS PROVIDED “AS IS,” WITH ALL FAULTS, AND WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT;
- b) SUPERNA SHALL NOT BE LIABLE FOR ANY DAMAGES WHATSOEVER, WHETHER DIRECT, INDIRECT, INCIDENTAL, SPECIAL, OR CONSEQUENTIAL, OR FOR LOST REVENUES, OR LOST DATA, SYSTEMS OR LOST PROFITS, UNDER ANY THEORY OF LIABILITY, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES IN ADVANCE; AND
- c) SUPERNA SHALL HAVE NO INDEMNIFICATION OBLIGATION TO COMPANY, INCLUDING BUT NOT LIMITED TO CLAIMS ALLEGING THAT THE USE OF THE LICENSED PROGRAM INFRINGES OR MISAPPROPRIATES THE COPYRIGHT OR CANADIAN OR U.S. PATENT RIGHTS OF A THIRD PARTY.

3.2 License: Subject to Company’s compliance with the terms set forth in this License Agreement, Superna grants to Company a perpetual, revocable, non-exclusive, non-transferable license to the Licensed Product identified in the Order Email solely for Company’s own internal use. This license does not extend to Company Affiliates unless agreed in writing by Superna and Company. This license to use certain Licensed Products, this license may be limited to one (1) or more Designated Storage Media, or the monitoring of a maximum number of Devices as set forth in the applicable Order Email (each an

“Authorized Use Limitation”). Notwithstanding the foregoing, Company’s license to use the Optional Features shall commence on the date of the Order Email and continue until the expiration or termination of the Maintenance and Technical Support Period described in the Order Email for Optional Features, or any renewal Maintenance and Technical Support Period, as applicable, or termination of this License Agreement in accordance with Section 5.2..

3.3. License Restrictions: Company shall not, and shall not permit any third party to:

- a) copy the Licensed Products, in whole or in part;
- b) modify, correct, adapt, translate, enhance or otherwise prepare derivative works or improvements of the Licensed Products;
- c) rent, lease, lend, sell, sublicense, assign, distribute, publish, transfer or otherwise make available the Licensed Products to any party, including on or in connection with the internet or any time-sharing, service bureau, software as a service, cloud or other technology or service;
- d) transfer the Licensed Program to any third party after it is installed on the Computer System;
- e) monitor more Devices than set forth in the Authorized Use Limitation or implement a new Designated Storage Medium after installation of the Licensed Program without written permission from Superna;

f) reverse engineer, disassemble, decompile, decode or adapt the Licensed Products;

g) remove, delete, efface, alter, obscure, translate, combine, supplement or otherwise change any disclaimers, or trademark or other proprietary rights symbols or notices, on any copy of the Licensed Products;

g) use the Licensed Product in any manner or for any purpose that infringes, misappropriates or otherwise violates any intellectual property or other right of any third party, or that violates any applicable law;

i) use the Licensed Product in such a way that results in Company's development of software products that are directly or indirectly competitive with the Licensed Program or other Superna products or services; or

j) use the Licensed Product for any purpose or application not expressly permitted by this License Agreement.

k) Search & Recover and Golden Copy licenses are:

1) Bound to the virtual appliance and not transferable to another physical location after license keys are downloaded

2) Locked to the hardware serial number of the device being indexed

3) Licenses cannot be transferred to another device without paying license key unlock fees

I) DR cluster based license version 2 and later are locked to a cluster GUID once applied and cannot be re-hosted.

3.4 Feedback: Company may provide to Superna suggestions, comments and feedback regarding evaluation, testing and use of the Licensed Product and the Services, including but not limited to usability, bug reports, and enhancement or feature requests or recommendations ("**Feedback**"). Company agrees that Superna and its Affiliates shall be free to use, disclose, reproduce, license or otherwise distribute, and exploit the Feedback as it sees fit, entirely without obligation or restriction of any kind on account of intellectual property rights or otherwise.

4. Ownership; Prerequisites; Third Party Code:

4.1 The Licensed Product is the proprietary property of Superna or its licensors and is protected by the copyright and trademark law of the U.S., international treaties and other applicable laws. Superna, its Affiliates and licensors retain any and all right, title and interest in and to the Licensed Product, including in all copies, improvements, enhancements, modifications and derivative works of the Licensed Product. Company's rights to use the Licensed Product shall be limited to those expressly granted in Section 3.1. All rights not expressly granted to Company are retained by Superna, its Affiliates or its licensors.

4.2 Superna shall identify a list of prerequisite hardware and software required for installation and use of the Licensed Program (“**Prerequisites**”). Company shall be responsible for acquiring, or authorizing Superna to acquire on Company’s behalf, all Prerequisites prior to installation and use of the Licensed Program. Superna shall not be a party to any software or other license agreement associated with the Prerequisites whether or not downloaded or installed by Superna personnel on Company’s behalf. Notwithstanding anything to the contrary in this License Agreement, Superna makes no warranty of any kind with regard to the Prerequisites.

4.3 Superna shall identify a list of Third Party Code contained within the Licensed Program located [here](#) and all such Third Party Code shall be subject to the license terms set forth therein. Superna shall not be a party to any software or other license agreement associated with Company’s use of the Third Party Code. Notwithstanding anything to the contrary in this License Agreement, Superna makes no warranty of any kind with regard to the Third Party Code.

5. *Term and Termination:*

5.1 The term of this License Agreement shall be for a period commencing upon the Effective Date and continuing until such time as Company discontinues use of the Licensed Product on the Computer

System or this License Agreement is terminated in accordance with Section 5.2 (the “**Term**”).

5.2 Superna shall have the right to terminate Company’s license to use the Licensed Product if Company fails to pay any required Fees or otherwise fails to comply with the terms and conditions set forth herein (each a “**Default**”). In the event that a Default is not payment-related, Superna shall give written notice to Company of such Default. If the Default has not been remedied within thirty (30) days after such notice, the license granted hereunder and any access to Maintenance and Technical Support Services shall terminate. In the event that Company has failed to pay any required License Fee, whether an initial license Fee or a Fee for Optional Features, or any Services, Superna shall give written notice to Company of such Default. If the Default has not been remedied in full within five (5) days of such notice, all licenses granted hereunder, and all entitlement to access Optional Features and the Services are hereby automatically revoked without further notice.

5.3 Company agrees, upon termination of this License Agreement for any reason, to immediately return or destroy the Licensed Product and copies thereof as directed by Superna and, if requested by Superna, to provide written certification of the destruction or return thereof.

5.4 Sections 2.1, 3.3, 3.4, 4.1, 5.3, 5.4, 7.2, 8.9, 10, 11, 12, 13.3, 13.4, 13.10, 13.11 and 13.16 of this License Agreement, and Sections 4 and

6 of Exhibit B hereto, shall survive the expiration or termination of Company's license and this License Agreement.

6. *Warranty:*

6.1 Superna warrants that:

a) for a period of ninety (90) days following the Effective Date (the "**Program Warranty Period**") that the Licensed Program will substantially conform to the specifications in the Documentation, including any known bugs or defects, when used in accordance with the Documentation; and

b) during the Initial Support Period, as defined in Section 9.1, and any renewal Maintenance and Technical Support Period, as applicable (the "**Maintenance and Technical Support Warranty Period**"), Maintenance and Technical Support Services shall be performed in a reasonable and workmanlike manner, consistent with generally accepted industry standards.

6.2 The Documentation is provided "as is" with no warranties of any kind.

6.3 Company's exclusive remedy for any breach of the warranties contained in Section 6.1 during the Program Warranty Period or

Maintenance and Technical Support Warranty Period, as applicable, is for Superna, at its expense, to use commercially reasonable efforts to: (a) replace or repair the Licensed Program; or (b) re-perform the Maintenance and Technical Support Services. Company must notify Superna in writing of any such non-compliance with these warranties within the applicable Warranty Period.

6.4 In the event Superna is unable, after using commercially reasonable efforts, to remedy the non-compliance with a warranty set forth in Section 6.1(a) or 6.1(b) after receipt of notification from Company during the applicable Warranty Period, Company's sole and exclusive remedy shall be: for Section 6.1(a), to return the Licensed Product, terminate Company's rights under this License Agreement and receive a pro-rata refund of payments actually received by Superna from Company for the Licensed Product (or the Optional Feature, if applicable) which is the subject of the warranty claim; and, for Section 6.1(b), to receive a pro-rata refund of fees actually paid by Company for the deficient Maintenance and Technical Support Services.

6.5 Any modification or attempted modification of the Licensed Product by Company, any failure by Company to implement any Update or Upgrade to the Licensed Product as supplied by Superna, or any use of the Licensed Product not in compliance with the specifications set forth in the Documentation, shall void the limited warranties set forth in Section 6.1.

6.6 EXCEPT AS OTHERWISE PROVIDED IN THIS SECTION 6:

a) SUPERNA, ITS AFFILIATES, LICENSORS AND RESELLERS EXPRESSLY DISCLAIM ALL WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE AND NON-INFRINGEMENT AS WELL AS ALL WARRANTIES ARISING BY USAGE OF TRADE, COURSE OF DEALING OR COURSE OF PERFORMANCE TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW;

b) SUPERNA, ITS AFFILIATES, LICENSORS AND RESELLERS, MAKE NO WARRANTY THAT THE LICENSED PRODUCT AND/OR MAINTENANCE AND TECHNICAL SUPPORT SERVICES WILL MEET COMPANY'S REQUIREMENTS, THAT THE LICENSED PRODUCT AND/OR MAINTENANCE AND TECHNICAL SUPPORT SERVICES WILL BE UNINTERRUPTED, TIMELY, SECURE, OR ERROR FREE, THAT ANY PRODUCT DATA OR USAGE DATA STORED BY SUPERNA WILL BE SECURE FROM ALL POSSIBLE THREATS, ACCURATE OR RELIABLE, THAT ERRORS OR DEFECTS IN THE LICENSED PROGRAM WILL BE CORRECTED, OR THAT THE LICENSED PRODUCT OR MAINTENANCE AND TECHNICAL SUPPORT SERVICES WILL BE FREE OF ALL POSSIBLE VIRUSES OR OTHER HARMFUL CODE; NOR DOES SUPERNA MAKE ANY WARRANTY AS TO THE

RESULTS THAT MAY BE OBTAINED FROM THE USE OF THE LICENSED PRODUCT AND/OR MAINTENANCE AND TECHNICAL SUPPORT SERVICES, TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW; AND

c) NEITHER SUPERNA, NOR ITS AFFILIATES, LICENSORS OR RESELLERS MAKE ANY WARRANTY THAT THE LICENSED PRODUCT OR THE MAINTENANCE AND TECHNICAL SUPPORT SERVICES WILL: (i) DETECT OR PREVENT ANY OR ALL MALICIOUS CODE OR THAT USE OF THE LICENSED PROGRAM AND RELATED UPDATES OR UPGRADES WILL KEEP COMPANY'S NETWORK OR COMPUTER SYSTEMS FREE FROM VIRUSES OR OTHER MALICIOUS OR UNWANTED CONTENT OR SAFE FROM INTRUSIONS OR OTHER SECURITY BREACHES; or (ii) NOT RESULT IN DAMAGE TO COPIED FILES, ERRORS IN COPIED DATA OR THAT DATA WILL BE COPIED OR SAVED AT ANY PARTICULAR SPEED.

d) NEITHER SUPERNA, NOR ITS AFFILIATES, LICENSORS OR RESELLERS MAKE ANY WARRANTY RELATED TO FEES, OVERAGES OR CHARGES RELATED TO CLOUD STORAGE SERVICE PROVIDER SERVICES. ALL FEES, COSTS, OVERAGES WHEN USING CLOUD STORAGE PROVIDERS IS COMPANY'S RESPONSIBILITY UNDER ALL CONDITIONS.

7. Mutual Indemnification:

7.1 Superna shall defend Company against any claim, demand, suit, or proceeding made or brought against Company by a third party alleging that the use of the Licensed Program or a Deliverable, as defined in Exhibit B, Section 1.1, as permitted hereunder, infringes or misappropriates the copyright or Canadian or U.S. patent rights of a third party (a "**Claim Against Company**"), and shall indemnify Company for any damages, attorneys' fees and costs finally awarded against Company as a result of, and for amounts paid by Company under a court approved settlement of, a Claim Against Company; provided, however, that Company shall: (a) promptly give Superna written notice of the Claim Against Company; (b) give Superna sole control of the defense and settlement of the Claim Against Company (provided that Superna may not settle any Claim Against Company unless the settlement unconditionally releases Company of all liability); and (c) provide to Superna all reasonable assistance, at Superna's expense. In the event of a Claim Against Company, or if Superna reasonably believes the Licensed Program may infringe, Superna may in its discretion and at no cost to Company: (i) modify the Licensed Program or Deliverable so that it no longer infringes, without breaching its warranties under Section 6.1 above, or Exhibit B, Section 5.1(a), as applicable, (ii) obtain a license for Company's continued use of the Licensed Program or the Deliverables, or (iii) terminate Company's license for such Licensed Programs or Deliverables upon ten (10) days' written notice and refund payments actually received by Superna from Company for the Licensed Product or Deliverable which is the subject of the infringement claim. Superna shall have no indemnification obligation for any claim to the extent based upon the following: (a) Company's use of the Licensed Program or Deliverable

in combination with other items when such infringement would not have occurred from the use of the Licensed Program or Deliverable solely for the purpose for which they were designed or sold by Superna; (b) modifications to the Licensed Program or Deliverable not authorized in writing by Superna; or (c) Company's continued use of the Licensed Program or Deliverable following notification to suspend use due to a claim or threat of a claim.

7.2. Company shall defend Superna, and its Affiliates, licensors and resellers (each a "**Superna Indemnitee**"), against any claim, demand, suit or proceeding made or brought against such Superna Indemnitee by a third party: (i) alleging that Company's use of the Licensed Programs, Services or Deliverables in breach of this License Agreement or otherwise not in compliance with the Documentation or Service Description, infringes or misappropriates the intellectual property rights of a third party or violates applicable law, or (ii) that otherwise relates to a breach by Company of this License Agreement (a "**Claim Against Superna**"), and shall indemnify the Superna Indemnitees for any damages, attorneys' fees and costs finally awarded against each such Superna Indemnitee as a result of, or for any amounts paid by a Superna Indemnitee under a court-approved settlement of a Claim Against Superna; provided that Superna (a) promptly gives Company written notice of the Claim Against Superna; (b) gives Company sole control of the defense and settlement of the Claim Against Superna (provided that Company may not settle any Claim Against Superna unless the settlement unconditionally releases the Superna Indemnitee of all liability); and (c) provides to Company

all reasonable assistance, at Company's expense. Company shall have no indemnification obligation for any claim to the extent based upon the gross negligence or willful misconduct of a Superna Indemnitee.

7.3 If at any time during the Term, Company has actual knowledge of any infringement of, litigation instituted with respect to, or challenge to the Licensed Product, including any Optional Feature, or Services, or any component thereof, or any Deliverable, or any Superna trademark, Company shall immediately notify Superna in writing.

Additionally, in such event, Company shall immediately furnish to Superna copies of any correspondence, notices, complaints, legal documents, or other written materials relating such alleged infringement, litigation or challenge which it may have in its possession.

7.4 This Section 7 (Mutual Indemnification) states the indemnifying party's sole liability to, and the indemnified party's exclusive remedy against, the other party for any type of claim described in this Section 7.

8. Limitations of Licensed Program and Optional Features:

8.1 Company acknowledges that the Licensed Program is not intended to replace the professional skills and judgment of Company and its personnel or replace any data backup plans or solutions.

Neither Company nor its personnel will rely on the Licensed Program, the Documentation or any Services as a substitute for such professional skills and judgment. Company agrees to regularly backup Company data and Computer Systems in accordance with generally accepted practices.

8.2 Company acknowledges that Company, in its sole discretion, shall be responsible for Computer System design.

8.3 Company acknowledges that any network or the Internet may not be reliable and, accordingly, copied files may be damaged when transmitted over such systems.

8.4 Certain Licensed Programs are made available for one (1) or more specific Designated Storage Media. Superna reserves the right to charge a fee for implementation of a new Designated Storage Medium requested by Company.

8.5 A Designated Storage Medium may not store copied files correctly and the Licensed Product, and Superna personnel in its performance of any Services, may fail to detect such improper storage. Customer is solely responsible for the functioning of all Designated Storage Media.

8.6 Superna can make no guarantee with respect to the speed of copying to Designated Storage Media undertaken by the Company using the Licensed Program.

8.7 With respect to use of the Licensed Program in connection with High Risk Systems, Company acknowledges that only Company has the necessary risk assessment information to create and implement back-up plans and other safeguards in the event of an Error or misuse of the Licensed Program or Services by Company. Accordingly, all such planning and implementation is the sole responsibility of Company and its personnel. Company acknowledges that it will not use the Licensed Program for back-up of such High Risk Systems or critical data. Company shall also be responsible for the continued operation and maintenance of the Computer System, the Prerequisites, and any Designated Storage Media and any Devices monitored by a Licensed Program.

8.8 Company agrees to regularly backup Company data and Computer Systems on separate media and in accordance with generally accepted practices. Company acknowledges that any failure to back-up data and Computer Systems may cause Company to lose data in the event of an error in or other failure of the Licensed Program or any Superna service. Since only Company, not Superna, can know the value of Company Computer Systems and data, only Company can plan and implement backup plans and safeguards appropriate to Company's needs in the event of an Error or other failure of the Licensed Program, or if the Maintenance and Technical Support Services cause Computer System problems or data loss.

8.9 Company agrees that it is solely responsible for the design, repair and configuration of Company's Computer Systems, Devices, and the planning and implementation of and compliance with Company's procedures and protocols for disaster recovery and other risks

associated with the Computer System and Devices monitored.

Company assumes all risks and liability for results obtained by the use of the Licensed Program and/or implementation of plans or procedures that are in any way influenced by the use of the Licensed Product. Company shall protect, indemnify, hold harmless and defend Superna and its Affiliates, licensors and resellers, of and from any loss, cost, damage or expense, including attorneys' fees, arising from any claim asserted against Superna, or its Affiliates, licensors and resellers, that is in any way associated with the matters set forth in Sections 8.1 through 8.9.

8.10 In order to utilize the Optional Features, Company agrees to install all Upgrades and otherwise comply with applicable Documentation for the Licensed Program and such Optional Features, at all times. All Documentation is provided "as is" and "as available." Superna cannot guarantee that it is correct or up to date. Company acknowledges that the Optional Features require computing resources set forth in the Documentation in order to support the Authorized Use Limitation. If Company commits insufficient compute, memory and disk resources, or fails to install any Prerequisites, this may result in: (a) loss of entitlement to Maintenance and Technical Support Services; and (2) unpredicted response times and software behaviors; and (3) voiding of the warranties set forth in Section 6.1(a). Company must routinely install Updates and follow any updates to the Licensed Program for the Optional Features to operate effectively.

8.11 Superna reserves the right, periodically and at any time, to modify or discontinue, temporarily or permanently, functions and features of the Licensed Program in future releases, with notice

posted to <https://manuals.supernaeyeglass.com/> or through a Product Notification. You acknowledge and agree that Superna shall have no liability to you for any interruption, modification or discontinuation of any feature of the Licensed Program or change to these terms. You understand and agree that Superna has no obligation to provide Updates or Upgrades to the Licensed Program.

9. Maintenance and Technical Support Services:

9.1 Ordering: The Order Email sets forth the initial Maintenance and Technical Support Services entitlement period for the Licensed Product (“Initial Support Period”). In the event that Company fails to activate the Program and Maintenance and Technical Support Services within six (6) months of the date of the Order Email, or allows a lapse in Maintenance and Technical Support Services for any period of time, Customer’s entitlement to Maintenance and Technical Support Services shall terminate. During any such period, Superna may, in its sole discretion, elect to provide Company limited Technical Support Services on an “as is” basis with no service level commitment and no access to those Maintenance and Technical Support Services described in Section 9.2. In the event of any failure to activate the Licensed Program, in accordance with Section 2.3, or lapse of Maintenance and Technical Support Services as contemplated by this Section 9.1, Superna may require Company to acquire any Update or Upgrade by paying the then-current Licensed Program Fee for including Maintenance and Technical Support Services. Upon receipt

of such payment, Superna will issue a new license key for the Licensed Program Maintenance and Technical Support Services to Company which will include the Authorized Use Limitation and the Maintenance and Technical Support Services entitlement period.

9.2 Upgrades and Updates: If Company maintains Maintenance and Technical Support Services during the Term, Superna will provide Company with access to Upgrades and Updates, if any, and appropriate Documentation, for installation by Company.

Documentation may include release notes that provide additional information and provisional solutions to reported Errors with the Licensed Program.

9.3 Technical Support Services: Technical Support Services shall consist of technical support to be rendered in the English language by Superna as described in Exhibit A and the Documentation (“**Technical Support Services**”). Superna reserves the right to alter or amend the provisions of these sections or terminate the provision of Technical Support Services for the Licensed Program, upon the end of the then-current Maintenance and Technical Support Services period. Superna will use its commercially reasonable efforts to assist Company with requests for Technical Support Services. Superna does not guarantee any particular response or resolution time for such requests, however, Superna will use commercially reasonable efforts to resolve any Errors as set forth in Exhibit A, Section 1.3. Any materials provided to Company by Superna in connection with Technical Support Services shall be deemed Licensed Products (for code) and Documentation (for written materials), and are licensed, not sold, to Company.

9.4 Subcontractors: Superna may, in its sole discretion, use third party contractors to fulfill its obligations to provide Maintenance and Technical Support Services provided that Superna shall be responsible for performance of the Maintenance and Technical Support Services by such subcontractor in accordance with the terms of this License Agreement.

9.5 Phone Home Feature: Company may elect to opt in to the “Phone Home Feature” to share anonymized metadata with Superna to assist with its performance of Technical Support Services and to develop Licensed Product enhancements. This metadata, if authorized, will be sent automatically to servers owned or controlled by Superna or its Affiliates for storing, analyzing, debugging, and reporting Errors or abnormal behaviors. This metadata is a subset of System Data and, accordingly, will be subject to the terms and conditions of Section 11.1.

10. Confidential Information:

10.1 Information and data supplied by either party to the other party may include confidential or proprietary information. Confidential or proprietary information (“**Confidential Information**”) means any information or data (including without limitation any formula, pattern, compilation, program, device, method, technique, or process) that is disclosed by one party (the “**Disclosing Party**”) to the other party (the

“**Receiving Party**”) pursuant to this License Agreement and marked or otherwise identified in writing as confidential. Confidential Information of Superna includes, but is not limited to, the Licensed Product, the structure, organization, design, algorithms, methods, templates, data models, data structures, flow charts, logic flow, and screen displays associated with the Licensed Program, the Documentation, and pricing information. Confidential Information of Company may include, but may not be limited to, Company’s financial and business information. Confidential Information shall not include information that either party can demonstrate: (i) at the time of disclosure, is in the public domain or is otherwise available to the Receiving Party other than on a confidential basis; (ii) after disclosure, becomes a part of the public domain by publication or otherwise through no fault of the Receiving Party; (iii) was disclosed to the Receiving Party by a third party not under an obligation of confidentiality to the Disclosing Party; or (iv) is or has been independently developed by the Receiving Party (as evidenced by the Receiving Party’s written records) without access to any Confidential Information of the Disclosing Party.

10.2 Each party agrees: (i) to hold the Disclosing Party’s Confidential Information in confidence; and (ii) except as expressly authorized by this License Agreement, not to, directly or indirectly, use, disclose, copy, transfer or allow access to the Confidential Information. Notwithstanding the foregoing, a Receiving Party may disclose Confidential Information of the Disclosing Party as required by law or court order; in such event, such party shall inform the other party in writing prior to any such required disclosure. And, notwithstanding

any other provision of this License Agreement, Superna will not be prevented or restricted from using any technique, idea, concept or know-how relating to Superna's business activities.

11. *Personal Information; Product Data; Usage Data:*

11.1 Company agrees to allow Superna, and its Affiliates and resellers, to store and use the personal information Company provides to Superna in connection with its use of the Licensed Product and receipt of Technical Support Services including, but not limited to, Registration Information, System Data, and information contained within any Report or request for Services (collectively "**Product Data**"), anywhere Superna, its Affiliates or its resellers do business, and as set forth in the Privacy Policy

at <https://www.supernaeyeglass.com/privacy-policy>. You confirm that you are solely responsible for any personal information that may be contained in the Product Data and for compliance with applicable data protection laws.

11.2 Superna will have the right to collect, extract, compile, synthesize, and analyze de-identified data and information resulting from or relating to the use or operation of the Licensed Product and the Services by Company ("**Usage Data**").

11.3 Company grants to Superna and its Affiliates a non-exclusive, irrevocable, royalty-free, worldwide license, with right to sublicense, to use, analyze, copy, make, sell, modify and enhance Product Data and Usage Data: (a) to the extent that such license is required to enable Superna to perform the Services; and (b) in de-identified, aggregated form for statistical purposes; and (c) to enhance and extend the functionality of the Licensed Product or the Services.

12. Limitation of Liability:

EXCEPT FOR COMPANY'S BREACH OF SECTION 3.3 OR EXHIBIT B SECTION 4.2, EITHER PARTY'S BREACH OF THE CONFIDENTIALITY OBLIGATIONS SET FORTH IN SECTION 10, OR THE INDEMNIFICATION OBLIGATIONS OF A PARTY PURSUANT TO SECTION 7, IN NO EVENT WILL EITHER PARTY BE LIABLE FOR: (A) ANY INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY OR PUNITIVE DAMAGES OR COSTS OF PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES ARISING OUT OF OR RELATED TO THIS LICENSE AGREEMENT, INCLUDING BUT NOT LIMITED TO DAMAGES FOR LOST DATA, REVENUE OR PROFITS, HOWEVER CAUSED AND ARISING UNDER ANY THEORY OF LIABILITY, INCLUDING BUT NOT LIMITED TO CONTRACT OR TORT (INCLUDING PRODUCTS LIABILITY, STRICT LIABILITY AND NEGLIGENCE), AND WHETHER OR NOT SUCH PARTY WAS OR SHOULD HAVE BEEN AWARE OR ADVISED OF THE POSSIBILITY OF SUCH DAMAGE; OR (B) AGGREGATE LIABILITY ARISING OUT OF OR RELATED TO THIS

LICENSE AGREEMENT EXCEEDING THE NET AMOUNT SUPERNA HAS ACTUALLY RECEIVED FROM COMPANY OR RESELLER UNDER THE APPLICABLE ORDER EMAIL. SUPERNA DISCLAIMS ANY AND ALL LIABILITY FOR DAMAGES ASSOCIATED WITH THE USE OF THE LICENSED PROGRAM, THE SERVICES OR THE DELIVERABLES IN CONNECTION WITH A HIGH RISK SYSTEM.

13. *General:*

13.1. **Export:** Company acknowledges that the Licensed Product provided hereunder may be subject to export controls. Company agrees that any Licensed Product licensed hereunder will not be exported (or re-exported from the country where it was first installed), directly or indirectly, separately or as part of a system, without Company, at its own cost, first obtaining all necessary licenses from the United States Department of Commerce and any other appropriate agency of the United States or other government as may be required by law. Company acknowledges that it shall be solely responsible for determining the extent of any such licenses required, and for any costs associated with complying with the requirements of this Section 13.1.

13.2. **U.S. Federal Government End Use Provisions:** Superna provides the Licensed Product for ultimate U.S. federal government end use solely in accordance with the following: Government

technical data and software rights related to the Services include only those rights customarily provided to the public as defined in this License Agreement. This customary commercial license is provided in accordance with FAR 12.211 (Technical Data) and FAR 12.212 (Software) and, for Department of Defense transactions, DFAR 252.227-7015 (Technical Data - Commercial Items) and DFAR 227.7202-3 (Rights in Commercial Computer Software or Computer Software Documentation). If a government agency has a need for rights not conveyed under these terms, it must negotiate with Superna to determine if there are acceptable terms for transferring such rights, and a mutually acceptable written addendum specifically conveying such rights must be included in any applicable contract or agreement.

13.3. Audit: Superna shall have the right, during the Term and for a period of one (1) year thereafter, during regular business hours and with ten (10) business days' notice, to audit Company's compliance with the Authorized Use Limitation and usage of the Licensed Product (but only to the extent required to determine that Company's use of the Licensed Product is consistent with the uses permitted under this License Agreement), and Company shall permit Superna to have access to such properties, records and personnel of Company as Company may reasonably require for such purpose. Superna may exercise this right once in any twelve (12) month period unless there is a reasonable and substantiated belief that Company has breached a material provision of this License Agreement. The audit will be conducted by Superna or its authorized representatives. Company

agrees that Superna shall have the right, upon discovering a violation of any Authorized Use Limitation or other material provision hereof, to terminate this License Agreement.

13.4 Notice: Except as otherwise set forth herein, any notice required or permitted under the terms of this License Agreement or required by law must be in writing and must be delivered (a) in person, (b) by first class registered mail, or air mail, as appropriate, posted and fully prepaid to the appropriate address set forth in the preamble to this License Agreement or the Order Email, as applicable, or (c) via facsimile. Notices will be considered to have been given at the time of actual delivery in person, four (4) business days after deposit in the mail as set forth above, or upon receipt of facsimile confirmation. Either party may change its address for notice by notice to the other party given in accordance with this Section 13.4.

13.5 Assignment: Company may not assign any of its obligations, rights or remedies hereunder without prior written permission from Superna. Any attempted assignment in violation of this provision shall be null and void.

13.6 Waiver: Any waiver of the provisions of this License Agreement or of a party's rights or remedies under this License Agreement must be in writing to be effective. Failure, neglect, or delay by a party to enforce the provisions of this License Agreement or its rights or remedies at any time, will not be construed as a waiver of such party's

rights under this License Agreement and will not in any way affect the validity of the whole or any part of this License Agreement or prejudice such party's right to take subsequent action. No exercise or enforcement by either party of any right or remedy under this License Agreement will preclude the enforcement by such party of any other right or remedy under this License Agreement or that such party is entitled by law to enforce.

13.7 Independent Contractors: It is expressly agreed that the parties are acting hereunder as independent contractors. Neither party will be deemed to be an employee, agent, partner, franchisor, franchisee nor legal representative of the other for any purpose, and neither party will have any right, power or authority to create any obligation or responsibility on behalf of the other.

13.8 Force Majeure: UNDER NO CIRCUMSTANCES SHALL SUPERNA BE HELD LIABLE FOR ANY DELAY OR FAILURE IN PERFORMANCE RESULTING DIRECTLY OR INDIRECTLY FROM ACTS OF NATURE, FORCES OR CAUSES BEYOND ITS REASONABLE CONTROL, INCLUDING, WITHOUT LIMITATION, INTERNET FAILURES, COMPUTER EQUIPMENT FAILURES, TELECOMMUNICATION EQUIPMENT FAILURES, OTHER EQUIPMENT FAILURES, ELECTRICAL POWER FAILURES, STRIKES, LABOUR DISPUTES, RIOTS, INSURRECTIONS, CIVIL DISTURBANCES, SHORTAGES OF LABOUR OR MATERIALS, FIRES, FLOOD, STORMS, EXPLOSIONS, ACTS OF GOD, WAR, GOVERNMENTAL ACTIONS, ORDERS OF DOMESTIC OR

FOREIGN COURTS OR TRIBUNALS, NON-PERFORMANCE OF THIRD PARTIES, OR LOSS OF OR FLUCTUATIONS IN HEAT, LIGHT OR AIR-CONDITIONING.

13.9 Severability. If any provision, or portion thereof, of this License Agreement is found to be invalid, unlawful or unenforceable to any extent, such provision of this License Agreement will be enforced to the maximum extent permissible by applicable law so as to affect the intent of the parties, and the remainder of this License Agreement will continue in full force and effect. The parties will negotiate in good faith an enforceable substitute provision for any invalid or unenforceable provision that most nearly achieves the intent and economic effect of such provision.

13.10 Equitable Relief: The obligations of Company under Sections 3.3, 8 and 10 hereof are of a special and unique character which gives them a peculiar value to Superna and its Affiliates, licensors and resellers for which neither Superna nor these third parties can be reasonably or adequately compensated in damages in the event Company breaches such obligations. Therefore, Superna and its Affiliates, licensors and resellers, in addition to other remedies which may be available, shall each be entitled to injunctive and other equitable relief in the event of the breach or threatened breach of such obligations.

13.11 Governing Law: This License Agreement shall be governed by the substantive laws of the Commonwealth of Massachusetts, U.S.A.,

without regard to any conflict of law provisions. This License Agreement will not be governed by the United Nations Convention of Contracts for the International Sale of Goods, or by the Uniform Commercial Code, the application of which are expressly excluded.

The parties agree that sole jurisdiction and venue for any dispute relating to this License Agreement shall be in the state courts of Massachusetts or the United States District Court for the District of Massachusetts.

13.12 Companies in Brazil: For Companies with a primary place of business located in Brazil, the Supplemental Terms set forth [here](#), shall apply.

13.13 Construction. If there is a conflict between any term of this License Agreement and any term of an Order Email, the term in the License Agreement will prevail with respect to such conflict. This License Agreement and any instrument referred to herein or executed and delivered in connection herewith, will not be construed against any party as the principal draftsman hereof or thereof. The section and paragraph headings used in this License Agreement are inserted for convenience only and will not affect the meaning or interpretation of this License Agreement. Unless otherwise expressly stated to the contrary herein, all remedies are cumulative, and the exercise of any express remedy by either party herein does not by itself waive such party's right to exercise its other rights and remedies available at law or in equity.

13.14 No Third Party Beneficiaries. The parties hereto expressly agree that there are no third party beneficiaries of this License Agreement.

13.15 Hyperlinks: Superna uses hyperlinks in sections of this License Agreement for the sole purpose of providing you with additional information about the subject matter of such sections. The information referenced in any hyperlink is provided for informational purposes only and is not made a part of this License Agreement or incorporated in this License Agreement by reference unless specifically set forth herein.

13.16 Entire Agreement. This License Agreement (and Exhibits hereto) contains the entire agreement of the parties with respect to the subject matter of this License Agreement and supersedes all previous communications, representations, understandings and agreements, either oral or written, between the parties with respect to such subject matter. No terms, provisions or conditions of any purchase order, acknowledgement or other business form that Company may use in connection with the transactions contemplated by this License Agreement will have any effect on the rights, duties or obligations of the parties under, or otherwise modify, this License Agreement, regardless of any failure of Superna to object to such terms, provisions or conditions. Except as otherwise set forth herein, this License Agreement may not be amended, except by a writing signed by both parties.

13.17 Translation: This License Agreement has been prepared, and shall be interpreted, in the English language. Any translation of this License Agreement into any other language is solely for the convenience of Company. In the event of an inconsistency between clauses of this English version and any translation into another language, the English language clause shall prevail.

13.18 Terms Subject to Change: You acknowledge and agree that Superna may change the terms and conditions of this License Agreement from time to time upon reasonable notice to the email address you provided in the Registration Information or through a Product Notification. If you do not agree to any changes in this License Agreement, your only remedy is to cease using the Licensed Program. Your continued use of any part of the Licensed Program or Services after Superna has provided you with reasonable notice of such change for your review will be considered your acceptance of such change.

Exhibit A

Maintenance and Technical Support Services Terms

Coverage	Standard Offering
Tier 3	Yes
Error Correction	Yes
Updates	Yes
Assisted Upgrades , system expansions, migrations, redeployments or any related tasks	Yes (M-F 2 AM -3 PM EST excluding holidays) pending resource availability, no SLA on availability. The product is customer upgradeable.
Access to Software Upgrades during the term	Yes
Technical Support Services Methods	Web-based: https://support.superna.net ; email: eyeglasssupport@superna.net phone: 1 (855) 336-1580
Availability	24 x 7 (Including holidays)
Online Knowledge Base	Yes

Tech Bulletin (tech tips, FAQs, patches)	Yes
Vmware	No
Hyper-v	No
RHEL or CENTOS	No
Suse Linux	No

1. *Error Correction:*

1.1 Definition: “Error” means a failure of the Licensed Program to materially conform to its Documentation, but excludes any nonconformity resulting from Company's: (a) misuse, improper use, or unauthorized modification of any Licensed Product; (b) Company's failure to implement Updates or Upgrades; or (c) the combining of the Licensed Product with hardware or software other than the Prerequisites or other than as contemplated by the Documentation. Errors are classified in Table A.

Table A:

Critical (severity 1)	Major (severity 2)	Minor (severity 3)
Critical Errors. Critical Errors render the Licensed Program non-operational and have no known work-around. Critical Errors include, but are not limited to, the following: (a) complete failure to sync ALL	Major Errors. Major Errors affect Licensed Program operation and require immediate attention. However, these Errors do not have critical impact on operations and can be addressed during maintenance windows. Major Errors include the	Minor Errors. Minor Errors do not significantly impair the core functions of the Licensed Program and do not significantly affect ability to execute failover, monitor performance, search for audit events with unknown date or time of the incident. Minor Errors

<p>configuration data for supported cluster configurations and versions of cluster software; (b) inability to launch failover job; (c) inability to log on to the UI; and (d) inability to boot the appliance successfully after more than two (2) attempts. (e) Audit Product - reading or writing audit data only if not related to external network, prerequisites and reachability, and operational documented procedures to monitor audit ingestion and restart ingestion have already been completed (f) Ransomware product - creation of snapshots or lockout of ALL users from SMB shares if not related to external cluster API or partial snapshot or share lockout, or restore of user access to ALL smb shares (g) Search product - unable to execute any searches (h) Audit product - unable to execute any audit searches</p> <p>Critical Errors do not include any Error resulting from the following:</p> <p>(a) Not running latest Major or Minor Release and attempting a failover where the issue is resolved in an available version; (b) Failover over jobs with errors that require manual recovery steps; (c) Failure to follow failover recovery steps as directed by Technical Support Services personnel or from Documentation; (d) Any failure to contact third party software or device product support resources when reasonably requested by Technical Support Services personnel; (e) External dependencies caused by IP network, permissions, CPU, memory and disk, virtual hypervisor environment, AD availability, incorrect DNS configuration and cluster API issues (f) Computer System performance below recommended configurations in Documentation; (g) Failure to follow regular daily or weekly monitoring of Computer System operations (alarms, reports); (h) Failure to take corrective actions, or requesting Technical Support Services, for any procedure or condition for which Documentation is available; or (i) Failure to configure all Prerequisites as stated in Documentation (j) Failure to follow recommended configurations provided during knowledge transfer sessions</p>	<p>following: (a) Errors that disrupt or prevent routine Licensed Program activities such as system backup, system administration or sync function; (b) complete failure to sync some of the SyncIQ policy configuration data for supported cluster configurations and versions of cluster software; (c) Problems that significantly affect a function of the Licensed Program core material function of the product and no reasonable workaround is available. (d) Health check test functions example security guard, robot audit are not functioning but not related to external issue preventing normal operation (e) Ransomware product - unable to restore access to some SMB shares (f) Ransomware product - unable get Security guard completing successfully</p> <p>Major Errors do not include any Error resulting from the following:</p> <p>(a) External dependencies caused by IP network permissions, CPU, memory or disk; or AD availability, incorrect DNS configuration and cluster API issues (b) Licensed Program performance below recommended configurations in Documentation. (c) 3rd party software or hardware that is identified as the root cause of an Error that affects the Licensed Program; (d) audit product - missing data in the audit data base as a result of failure to monitor health check features , alarms that indicate audit data processing issue (reading or writing to DB) that are not acted on. (e) Not following operational procedures to monitor audit data processing alarms and graphs (f) search product - incremental index jobs fail and not related to cluster changelist job issues (g) Ransomware product - unable to restore access to some SMB shares via automated method</p>	<p>include the following:</p> <p>(a) Errors in a function of the Licensed Program with a known work-around; (b) Errors in non-key functions of the Licensed Program; (c) Errors in the user Interface with a known work-around; (d) Errors that affect usability but not functionality; (e) Errors in the Documentation; (f) Errors related to the pre-production use of the Licensed Program (initial installation and configuration and/or installation service not completed); and (g) Problems resulting from procedures missing from the Documentation. (h) Upgrade issues (i) Errors that affect service for administrators such as emailing alarms, reports if not related to customer mail server; and (j) Forwarding email or syslog alarm configuration (k) syslog forwarding of audit data (l) ingesting historical audit data to audit database</p> <p>Minor Errors do not include any Error resulting from the following:</p> <p>a) External dependencies caused by IP network permissions, CPU, memory or disk; or AD availability, incorrect DNS configuration and cluster API issues</p> <p>(b) Licensed Program performance below recommended configurations in Documentation. (c) 3rd party software or hardware that is identified as the root cause of an Error that affects the Licensed Program; (d) Not following operational procedures to monitor audit data processing</p>
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<p>(k) Any release note or technical advisory issue published to documentation</p> <p>(l) Any software agent or OS modification installed by customers into the operating system that conflicts or interferes with application functionality examples include monitoring or security agents</p> <p>(m) not detecting Ransomware during a simulated test example security guard feature or other manual testing</p> <p>(n) search product - unable to login as AD user, with local admin user functional</p> <p>(o) search product - expected results not matching without indexing of data fully completed</p> <p>(p) audit product - historical audit data ingestion when audit data is missing from the database</p>		
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1.2 Error Classification: Upon identification of an Error, Company shall notify Superna using a Technical Support Services Method set forth above (“**Technical Support Services Method**”). Superna shall only respond to notifications that are properly submitted through a Technical Support Services Method. Company must provide Superna with sufficient information to locate and reproduce the Error. Superna will use commercially reasonable efforts to acknowledge receipt of the Error report within two (2) hours for all case types and target response for unplanned failover of 30 minutes. Superna will make the final determination of the classification of such Error.

1. Cases with type Task or Question will be answered without consideration for any SLA and all issue/problems will be prioritized ahead of questions or tasks.

2. Software Upgrade Assistance is not covered by the support contract SLA's and is automatically assigned minor case severity. Software Upgrade assistance is handled by the service team on a best effort basis and will be scheduled by sales based on resource availability during service team operating hours.

NOTE: The software is customer installable with documentation provided for customers to install the software and is an expected operational procedure for customers to execute.

1.3 Service Level Objectives: Superna and Company acknowledge the potentially idiosyncratic nature of any Error in the Licensed Product, and that not all Errors will be corrected. Superna will use commercially reasonable efforts to attempt to resolve any Errors within the times specified in Table 1 (“**Resolution Time Target**”). However, the parties acknowledge and agree that any failure to meet Resolution Time Targets will not constitute a failure of Superna to perform a material provision of this License Agreement.

Table B:

Error Severity	Support Site Priority	Resolution Time Targets
Critical	High	70% = root cause identified within 2 business days 30% = root cause identified within 5 business days

		Resolution and deployment of a solution within 5 business days of identification of root cause
Major	Normal	80% = root cause identified within 4 business days 20% = root cause identified within 10 business days Resolution and deployment of a solution within 10 business days of identification of root cause
Minor	Low	Root cause identified within 10-20 business days Resolution and deployment of solution in the next Update

1.4 Resolution Time Target Requirements:

1. Resolution Time Targets are triggered by Superna's receipt of notice of an Error via a Technical Support Services Method.
2. Resolution Time Targets require that Company provide a sample of at least ten (10) cases of an Error to be statistically measurable.
3. Resolution Time Targets are provided "as is" with no implied or express warranty or recourse if not met by Superna.
4. Resolution Time Targets are presented as a guideline only and may be impacted by third party product support response times.
5. In the event Company's response to any question or request for input by Superna is unanswered for four (7) consecutive days, the question or request will be automatically closed.

2. Delivery of Maintenance and Technical Support

Services:

2.1 Company Obligations:

(a) Company is responsible for Level 1 and Level 2 Technical Support of its authorized users. "**Level 1 Support**" means responding to the initial report identifying an Error; and (ii) "**Level 2 Support**" means analyzing and/or reproducing the reported Error or determining that the reported Error is not reproducible. Level 2 Support also includes resolving any Error when Superna has provided Company with notice of the Error through a Product Notification and a description of the action required to address it.

(b) Company must also:

1. Supervise, control, and manage the Licensed Product, implement backup procedures and maintain a current backup copy of all programs and data to protect information in the event of Errors or malfunctions of the Licensed Product or Computer Systems (including the software and hardware products used to provide disaster recovery or other IT services) and protect data

- from damage during the performance of Technical Support Services;
2. Accept use of Webex VOIP audio and screen sharing software or provide Superna with reasonable telephonic or remote screen sharing solutions for Company's personnel and equipment upon which the Licensed Product is loaded or operating;
 3. Document and promptly report Errors of the Licensed Product to Superna;
 4. Properly train its personnel in the use of the Licensed Product and the Computer System;
 5. Promptly install Updates provided by Superna;
 6. Refrain from running virus protection, backup software or other software during Technical Support Services unless authorized in writing by Superna;
 7. Designate one primary and one backup individual to serve as Company liaison with Superna Technical Support Services personnel (each a "**Technical Contact**") and promptly notify Superna whenever its Technical Contact responsibilities are transferred to another individual;
 8. If Company intends to designate a Technical Contact that is an employee of a third party, including Dell EMC, submit a written request to Superna including the company name, and the individual's name and email address, for review and approval by Superna;
 9. Open each request for Technical Support Services with both a primary and a backup Technical Contact email addresses to allow Superna to validate Technical Support Services

entitlement; Use only those email addresses where the domain name matches the domain name in the Registration Information; No personal email addresses (e.g., gmail.com, yahoo.com) or other domains not associated with Company may be used to open a request for Technical Support Services.

10. Upload System Data as requested by Superna Technical Support Services personnel;
11. For Errors related to the Licensed Program, make reasonable attempts to reproduce the Error, and provide documentation of such reproduction upon request of Superna Technical Support Services personnel;
12. Provide all requested information, screen shots or log files upon request of Superna Technical Support Services personnel;
13. Execute remediation steps upon request of Superna Technical Support Services personnel and provide prompt responses to inquiries using a Technical Support Services Method
14. Submit any request for Technical Support Services to assess failover readiness no less than seven (7) days prior to the planned failover event. Failure to request an assessment in accordance with this subsection may result in suspension of Maintenance and Technical Support Services in Superna's sole discretion;
15. Acknowledge that if Company receives a failover assessment of "Not Ready" from Superna Technical Support Services Personnel, it may result in suspension of Maintenance

and Technical Support Services at Superna's sole discretion;
and

16. Acknowledge that, following written notice to Company and a ten (10) day cure period, Superna may suspend Maintenance and Technical Support Services to the extent Company's failure to comply with this Section 2.1 substantially increases the cost or difficulty of Superna providing Technical Support Services to Company.

2.2 Superna Obligations:

1. Superna will provide Level 3 Technical Support Services. "**Level 3 Support**" means: (i) isolating the reported Error to a component level of the Licensed Product, provided such reported Error is reproducible by Company and does not relate solely to enhancements or other modifications of the Licensed Product made by or on behalf of Company, and (ii) providing a reported Error correction or a circumvention (followed as promptly as practicable by a reported Error correction). Superna will provide telephone-based Technical Support Services as and when necessary to fulfill Level 3 Support obligations, at Superna's sole discretion. Superna's obligations with respect to Level 3 Support are contingent upon Company compliance with the provisions of Section 2.1 hereof and pursuant to the License Agreement.
2. Superna may elect to offer Technical Support Services to Company by means of video and audio conference meetings utilizing a third party provider such as WebEx (each a "WebEx Session"). Company consents to the collection, recording, use, processing, storage and transfer of the visual, written or audible

communications, files or documents displayed, posted, uploaded, exchanged or transmitted by Company in connection with any WebEx Session (“Support Content”). Company grants to Superna and its Affiliates a non-exclusive, irrevocable, royalty-free, worldwide license, with right to sublicense, to use, analyze, copy, make, sell, modify and enhance Support Content to the extent required to enable Superna to perform the Technical Support Services or enforce the terms of the License Agreement.

3. Superna shall have no obligation to provide Technical Support Services in connection with any of the following:
 1. PowerScale cluster and OneFS releases;
 2. Microsoft Active Directory;
 3. Microsoft DFS and all versions;
 4. Networking including firewalls between the virtual appliance and the clusters;
 5. Dell SynclQ performance or functionality;
 6. Supported browsers used to access the appliance; or Linux client machines that access the cluster;
 7. ESX host and virtual environment that hosts the virtual appliance;
 8. Applying OS patches and security changes to the appliance;
 9. DNS servers used to resolve names for failover or appliance functionality;
 10. Time sync of the appliance to the PowerScale clusters time source;
 11. Any component, software or hardware not listed above that is affecting failover of an PowerScale system; or

12. Any Designated Storage Medium, including any Cloud Provider feature or functionality, including but not limited to Amazon AWS, Microsoft Azure and Dell EMC ECS.
13. Product VM memory, cpu, disk latency fail to meet documentation specifications

3. Version Support Policy

3.1 Superna will provide Technical Support Services for the Licensed Product in accordance with its then-current Superna Software Availability and Support Policy, a copy of which is available at <https://manuals.supernaeyeglass.com/project-software-releases/HTML/software-releases.html>. Company shall at all times use a supported version of the Licensed Product in accordance with such policy.

3.2 Company will be responsible for ensuring that the particular release specified for any required Computer System and Designated Storage Medium software (such as operating system, firmware or utilities) is being used. Superna may suspend Maintenance and Technical Support Services until the necessary Computer System software is installed. Company's obligation to pay fees for the then-current Maintenance and Technical Support Services Period will not be affected by such suspension.

4. *Superna*™ Eyeglass Installation Maintenance Task *Description*

The scope and terms of this installation task are outlined [here](#).

Exhibit B

Professional Services Terms

These Professional Services Terms (the “**Terms**”) shall apply to Professional Services you acquire from Superna in connection with your use of a Superna software product. Capitalized terms not defined herein shall have the meanings set forth in the Superna Master Software License and Support Services Agreement (the “**License Agreement**”).

Definitions:

1. **Deliverable** means a literary work or other work of authorship (such as documentation, training material, report, drawing, presentation, video, recording or similar work) that Superna may deliver to Company as described in a Service Description or any Statement of Work.
2. **Effective Date** means the date a Service Description or SOW is signed by Company.

3. **Fees** means the aggregate fees for the Professional Services ordered by Company in a Service Order.
4. **Services** means those professional services to be performed by Superna as described in the applicable Service Description or Statement of Work. Services do not include Maintenance and Technical Support Services.
5. **Service Description** means Superna's standard, then current description of a Professional Service that are set forth [here](#). In order to utilize any such Professional Service, Company must complete a questionnaire which includes an acknowledgment of the terms of such Services Description (each a "Technical Questionnaire"). Company may make no changes to a Service Description unless documented in a Statement of Work executed by the parties.
6. **Service Order** means Company's request for a Professional Service that: (a) includes a specific Professional Service part reference number corresponding with, and incorporating by reference, a Service Description; and (b) has been accepted by Superna in an Order Email.
7. **Statement of Work or SOW** means a document describing a customized service with scope determined and Fees quoted by Superna before purchase by Company.
8. **Scope of Services:** Subject to these Terms, Superna will use commercially reasonable efforts to perform the Professional Services in accordance with the Service Description or SOW.

Performance of the Professional Services:

3.1. Staffing: The Professional Services will be performed at Superna's premises in conjunction with Company's personnel located on Company's premises. Superna will control the manner by which the Professional Services are performed. Superna retains the right to subcontract any or all of the Professional Services at any time, provided that Superna shall be responsible for performance of the Professional Services by such subcontractor in accordance with these Terms.

3.2 Company Responsibilities: Company understands and agrees that Superna's performance of the Professional Services is dependent upon Company's timely and effective performance of its responsibilities hereunder. Company agrees to undertake the Company responsibilities outlined in any Service Description or SOW and as follows (the "**Company Responsibilities**"):

6. Company shall promptly complete a Technical Questionnaire and provide System Data to Superna. Company shall also provide Superna with access to other resources and personnel reasonably required by Superna to perform the Professional Services. Company shall be solely responsible for, and assumes the risk associated with the accuracy, completeness, competence, or consistency of the Technical Questionnaire or the System Data;
7. Company is responsible for the proper implementation or use of the Professional Services and any Deliverables in Company's Computer System or operations. Tasks that are primarily the

responsibility of Company's personnel will remain Company's responsibility, even if Superna assists Company in performing such tasks. Company agrees that Superna may rely on all Company decisions and Company approvals conveyed to Superna by Company personnel with respect to the Professional Services;

8. Company acknowledges that any recommendations made by Superna in the performance of the Professional Services are subject to the information Superna receives by the Company and shall not replace the professional skills and judgment of Company and its employees, agents and consultants. Company further acknowledges that Company, in Company's sole discretion shall be responsible for Computer System design, Cloud Provider access, configuration, implementation and use made by Company of any recommendations provided by Superna in the course of providing the Professional Service. Company shall also be responsible for the continued operation and maintenance of the Company's Computer Systems;
9. Company shall promptly respond to any Superna Professional Service scheduling request. Company must provide a written notice of delay if Services scheduling will be delayed by more than four (4) weeks from initial scheduling contact by Superna;
10. Company is solely responsible for obtaining all applicable equipment, and software and Cloud Provider services, and the compatibility thereof with the Deliverables; and
11. Company is responsible for promptly scheduling any Professional Service. Superna shall have no obligation to

perform or provide any refund for any Professional Service not scheduled by within six (6) months of the Order Email date.

4. ***Proprietary Rights:***

a. **Deliverables:** Superna or its licensors will own the copyright in all Deliverables. Subject to Section 4.2 below, Superna grants to Company a non-exclusive, non-transferable license to use the Deliverables solely for Company's internal business use and in conjunction with Company's authorized use of the Licensed Program during such time as Company is authorized to use the Licensed Program. Superna grants to Company only the licenses and rights specified with respect to the Professional Services. No other licenses or rights in or to the Deliverables (including licenses or rights under patents) are granted. The rights provided to you by Company in the Deliverables are subject to payment by Company of amounts due under these Terms.

b. **Use Restrictions:** Company shall not, and shall not permit any third party to:

1. copy the Deliverables, in whole or in part, except to the extent required to exercise the license grant set forth in Section 4.1;
2. use the Deliverables to facilitate Company's development of products or services that are directly or indirectly competitive with the Licensed Program or other Superna products or services;
1. prepare derivative works or improvements of the Deliverables;
2. transfer the Deliverables to any third party; or

3. remove, delete, efface, alter, obscure, translate, combine, supplement or otherwise change any disclaimers, or trademark or other proprietary rights symbols or notices, on any copy of the Deliverables.

4.3 Notification: Company shall promptly notify Superna of any unauthorized use, disclosure, reproduction, or distribution of the Deliverables, which comes to Company's attention, or which Company reasonably suspects.

17. *Warranty:*

1. Superna warrants that:
 2. for a period of thirty (30) days following delivery of a Deliverable to Company (the “**Deliverable Warranty Period**”) that Deliverable Material will substantially conform to the specifications in the Service Description or any applicable SOW; and
1. during the term of any applicable Service Order, (the “**Professional Services Warranty Period**”), Services shall be performed in a reasonable and workmanlike manner, consistent with generally accepted industry standards.
2. Company’s exclusive remedy for any breach of the warranties contained in Section 5.1 during the Deliverable Warranty Period or Professional Services Warranty Period, as applicable, is for Superna, at its expense, to use commercially reasonable efforts to: (a) replace or repair Deliverable; or (b) re-perform the Professional Services. Company must notify Superna in writing of any such defect within the applicable Warranty Period.

18. In the event Superna is unable, after using commercially reasonable efforts to remedy the defects identified by Company pursuant to Sections 5.1(a) or 5.1(b), Company's sole and exclusive remedy shall be: (a) for Section 5.1(a), to return the Deliverable, terminate Company's rights under these Terms and receive a pro-rata refund of payments actually received by Superna from Company for the Deliverable which is the subject of the warranty claim; and (b) for Section 5.1(b), to receive a pro-rata refund of fees actually paid by Company for the deficient Professional Services.
19. Any modification or attempted modification of a Deliverable by Company, or any failure by Company to use a Deliverable not in compliance with these Terms or the Licensed Product not in compliance with the License Agreement, shall void the limited warranties set forth in Section 5.1. Without limiting the foregoing, Company agrees that any of the following may void the limited warranties set forth in Section 5.1: (a) incorrect or inaccurate System Data; (b) failure to perform the Company Responsibilities set forth in Section 3.2; (c) any failure of Company to properly maintain Company Computer Systems or related software.
20. EXCEPT AS OTHERWISE PROVIDED IN THIS SECTION 5:
- e. SUPERNA, ITS AFFILIATES, LICENSORS AND RESELLERS, EXPRESSLY DISCLAIM ALL WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE AND NON-INFRINGEMENT AS WELL AS ALL WARRANTIES

ARISING BY USAGE OF TRADE, COURSE OF DEALING OR COURSE OF PERFORMANCE TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW;

- f. SUPERNA, ITS AFFILIATES, LICENSORS AND RESELLERS, MAKE NO WARRANTY THAT THE DELIVERABLES AND/OR PROFESSIONAL SERVICES WILL MEET COMPANY'S REQUIREMENTS, THAT THE DELIVERABLES AND/OR PROFESSIONAL SERVICES WILL BE UNINTERRUPTED, TIMELY, SECURED FROM ALL POSSIBLE VULNERALBILITIES , OR ERROR FREE, THAT ANY SYSTEM DATA OR REGISTRATION INFORMATION STORED BY SUPERNA WILL BE SECURE FROM ALL POSSIBLE VULNERALBILTIES, ACCURATE OR RELIABLE; NOR DOES SUPERNA MAKE ANY WARRANTY AS TO THE RESULTS THAT MAY BE OBTAINED FROM THE USE OF THE LICENSED PRODUCT AND/OR PROFESSIONAL SERVICES, TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW; AND
- g. GIVEN THE NATURE AND VOLUME OF MALICIOUS AND UNWANTED ELECTRONIC CONTENT, NEITHER SUPERNA, NOR ITS AFFILIATES, LICENSORS OR RESELLERS MAKE ANY WARRANTY THAT UTILIZING THE PROFESSIONAL SERVICES, INCLUDING CONFIGURATION OF THE LICENSED PROGRAM, WILL RESULT IN DETECTION OF ANY OR ALL POSSIBLE MALICIOUS CODE, THREATS OR THAT USE OF THE LICENSED PROGRAM AND RELATED UPDATES OR

UPGRADES WILL KEEP COMPANY'S NETWORK OR COMPUTER SYSTEMS FREE FROM VIRUSES OR OTHER MALICIOUS OR UNWANTED CONTENT OR SAFE FROM INTRUSIONS OR OTHER SECURITY BREACHES.

Miscellaneous:

1. Non-Solicitation: Company acknowledges and agrees that the employees of Superna who perform the Professional Services are a valuable asset to Superna and are difficult to replace. Accordingly, during the term of these Terms and for a period of one (1) year thereafter, Company shall not solicit, whether directly or indirectly, the employment of any Superna employees without the prior written consent of Superna. If Company violates this Section 6.1, the parties agree that Company shall pay to Superna the sum of one hundred thousand dollars (US\$100,000) as liquidated damages. The parties further agree that precise monetary damages for Company's violation of this Section 6.1 would be difficult to ascertain and that the foregoing sum represents a fair and conservative approximation of cost of recruitment, hiring and training that would be incurred by Superna.
2. Independent Development: Nothing in these Terms (including, without limitation, the receipt of information from Company in connection with the Professional Services shall: (a) limit Superna's development, marketing or distribution of software or

other technology involving any functionality or ideas, whether similar to those disclosed by Company or otherwise; (b) limit Superna from undertaking similar efforts or discussions with third parties who may compete with Company; or (c) create obligations binding in any way on Superna limiting or restricting the assignments, activities, or training of employees or contractors of Superna.

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1.2. 3rd Party Notices

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[List of 3rd party licenses and components, not covered by the EULA.](#)

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1.3. Brazil Supplemental Terms

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Supplemental License Agreement Terms

for Companies in Brazil

For any Company with a primary place of business in Brazil, these Supplemental License Agreement Terms (the “Supplemental Terms”) shall apply in addition to the Software License and Support Agreement for a Superna Licensed Product (the “License Agreement”) entered into by Superna and Company with respect to the Licensed Product.

Capitalized terms not defined in these Supplemental Terms shall have the meanings set forth in the License Agreement. In the event of a conflict between the License Agreement and the Supplemental Terms, the Supplemental Terms shall prevail solely for those Companies with a primary place of business in Brazil.

1. Repair and Replacement of Licensed Products and Services:

Superna will repair or replace any defective Licensed Program during the Program Warranty Period and any defective Deliverable during the Deliverable Warranty Period. Superna will reperform any defective Services within thirty (30) days of request from Company. If Superna is unable to repair any such defects during the applicable period, Company may terminate the Agreement, subject to the terms of Sections 5.3 and 5.4 of the License Agreement, and Superna or its Authorized Reseller

will reimburse amounts paid by Company for: (a) the Licensed Product; (b) amounts paid for Maintenance and Technical Support Services during the then current Maintenance and Technical Support Period; and (c) amounts paid for defective Professional Services giving rise to such termination, if any. In addition to the foregoing, Superna will comply in all material respects with the Brazil Consumer Protection Code of 1990 as may be amended or superseded from time to time.

2. **Entire Agreement:** Except as specifically supplemented herein, the terms of the License Agreement shall remain unchanged unless amended by the parties in accordance with Section 13.15 of the License Agreement.

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1.4. Product Specifications

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1.4.1. Ransomware Defender

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Ransomware Defender Product Specification

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- [Overview](#)
 - [Terms](#)
- [Functional Specification Description](#)

Use of this document

This document is the functional specification definition of the product's functionality.

Overview

The Ransomware product monitors audit data on Isilon/power scale clusters running OneFS 8.x and 9.0 and 9.1 software. This audit data is analyzed for user IO that appears to be similar to Ransomware attempting to read data and encrypt data. It does not detect any other type of malware other than Ransomware.

[Terms](#)

1. Eyeglass GUI - User monitoring, alarms and user interface to interact with product configuration and threats raised.

2. ECA VM's - These are VM that process audit data and determine threats to production data.

Functional Specification Description

1. Dependencies

- a. Read Audit data for supported OneFs releases
 - i. NFS mount of the cluster is used to read audit data
 - ii. If the NFS mount to the ECA software is impacted by a network issue no audit data will be read and will impact analysis. This condition is monitored with the health check process called security guard. This must be used to monitor normal operations and validates if audit data is being read and processed.
- b. Cluster API is reachable
- c. NTP
- d. Disk latency below published specifications for VM's
- e. AD is reachable via cluster API
- f. VM disk latency is < product specification in documentation
- g. RAM is allocated without oversubscription of the memory on the host running Ransomware Defender
- h. Auditing must be enabled on any access zone that will be protected
- i. Cluster must be licensed for Ransomware Defender
- j. Only available in vmware OVA, Hyper-v

2. Patching

- a. The product does not support hotfix patching and requires a complete upgrade of the software version or build number to apply any patch
- b. Operating system patches are not provided and must be downloaded directly from online official open suse repositories

3. Compatibility

- a. The product does not support forward compatibility with target devices and will require a software upgrade to support a forward version of a target device. This includes minor or build number changes of the target device.

4. Appliance Modifications

- a. Modifying the operating system packages, removing or adding packages, changing the OS configuration and support of these changes is not covered by support and customers must support OS modifications and perform necessary testing. No support for customer modifications with the exception of applying open suse OS package patches that shipped with the original appliance or published procedure in documentation.

5. Operational Procedures

- a. If documentation does not list a procedure, it is explicitly unsupported unless support provides a procedure.

6. Installation

- a. This product is not customer installable and must be installed and configured by professional services for correct deployment and validation of the software integration with the cluster.

7. Use limitations

- a. Combining this product with any other product is in violation of the specification & documentation unless it is found in documentation.

8. Analyze Audit data by:

- a. NOTE: Even when used in accordance with documentation found here <https://manuals.supernaeyeglass.com/project-eyeglass-administration-guides/HTML/eyeglass-ransomware-admin-guide.html> this section still applies.
- b. sampling audit events which by definition means building patterns based on windows of time, and the window limits the analysis of a pattern. Dual vector detectors are used to use audit data over larger windows to mitigate this.
- c. Processing means reading sampled audit events into the threat detector module
 - i. Threat detectors look for patterns over a time period or window of time to determine if a threat has been detected.

ii. Detector types

1. File extension is a list of 2400+ extensions that have been associated with Ransomware in the past, this is not guaranteed to be an exhaustive list and new extensions will not be added in a timeline that this method of detection can be depended on as a primary detection vector.
2. Honeypot files - requires customers to configure files on shares or exports that allows monitoring of a "trip wire" file that is monitored for encryption IO events. If not configured by the customer this detection method will not function and reduces protection.
3. Behavior based detection - successive user operations that appear to be reading files in bulk, encrypting the data and then handling the source unencrypted file via deletes or rename operations.

iii. Design Specification Limitations

1. It is expected that based on the above mathematical permutations that in some cases Ransomware behaviors may go unnoticed. This is expected in order to reduce false positives. This is a balance of processing time, sampling behaviours to provide increased detections at a reduced cost but exposes gaps in detection. To mitigate this all configuration options and detections should be used including the tripwire honeypot files. Multi vector detectors can be configured and should be set up by customers post installation.
2. False Positives are expected by design and may lead to excessive snapshots up to cluster limits before corrective action can be taken. A false positive may also lockout an application and is expected customers follow operating procedures to mitigate service account from lockout using ignore list or monitor lists.

3. Affected files list - the CSV list of files provided by the product is not an exhaustive list of affected files. Easy auditor or 3rd party audit products should be used to report on all file touched by an affected user. This is design intent to provide a list of some of the files that tripped the detector.
4. Detection variables and limitations
 - a. NOTE: Even when used in accordance with documentation found here <https://manuals.supernaeyeglass.com/project-eyeglass-administration-guides/HTML/eyeglass-ransomware-admin-guide.html> and this specification, the limitations in this section still apply.
 - b. The rate of the user behavior and the time window over which the sample is taken along with the sample of audit event used for analysis means a detection can be missed and this is expected that a behavior may be missed when analysing all permutations of time window and detectors and a sample of the source audit data.
 - c. User understands: Operational monitoring, and documentation procedures mitigate this customer risk by monitoring alarms, and verify security guard is operating normally along with configuration of the honeypot files within the file system. Various configuration options also reduce protection but simplifies operations customer choices affect the protection the product offers.
 - d. **User understands:** Combining all detection methods will mitigate missed detections but it will not eliminate the possibility a detection is missed. This means a variant of Ransomware may go undetected without detection or protection of the file system.

Backups and snapshots are expected to exist or a cyber vault.

- e. In addition, a [cyber vault or Airgap as documented in the documentation](#) and it offers additional mitigation but must be configured to achieve the highest level of data protection.
- f. Customer configuration can be set up to alert only in monitor mode and snapshots can be disabled. This mode reduces protection and this is documented in documentation.
- g. Monitor only mode will not attempt to disconnect a suspect user and thereby reduce the number of files impacted in an attack. This is a customer decision to enable enforcement mode to protect the file system.

iv. Detection processing

1. Each user has individual learned detection settings if learning mode is used. This mode observes IO and customizes settings to remove 80% of the false positives.
2. Default settings are used for any user without custom settings
3. Once a security event is detected:
 - a. Send alarm about new security event
 - b. Lookup user AD groups from cache
 - c. Resolve SMB share access
 - d. Store files in security events to CSV file
 - e. Update SMB shares with deny read permission for the user involved
 - f. Generate snapshots on smb shares
 - g. Update log for event with timestamps throughout processing logic
 - h. Done

- v. Detection processing scenarios that alters processing logic
 - 1. These lists alter processing based on above logic
 - a. Whitelist by path, user or ip will ignore and detection that matches the filters
 - b. Monitor mode path, user, or ip will skip lockout step for any detections that match the filters.
 - 2. Snapshot mode
 - a. Enabled will trigger snapshots, disabled will not snapshot
 - 3. Critical mode
 - a. Disabled means no immediate real time lockout will occur and only timed lockout
 - 4. File extension processing
 - a. File extensions can be enabled (enforced), disabled (ignored) or monitor mode which disables lockout logic as per above.
- vi. Flag as false positive and learning mode
 - 1. Monitor detections and peak values seen (highest rate) and increase detectors to bump up by .3 relative to the defaults. This process is manually triggered or automated with learning mode.
 - 2. The outcome of the analysis is visible in the GUI and can be deleted by admins to relearn. Manual detector CLI also exists to customize by hand.
- vii. File banned list available as versioned file that allows customers to switch between versions. Ie. current version and switch to new version.
 - 1. Custom file extensions are supported allowing customers to add any extensions to the list
- d. Event data is stored as a CSV for each user and provides a sample of the affected files in the database.

- i. CSV includes file, path, detector, date and time, user ID, file extension

9. Airgap Function

- a. This function automates syncing data using synciq between Isilon or powerscale clusters on a closed private network for the purpose of maintaining an offline copy of data. This helps ensure best practices for data protection.
- b. 2 different product options are available with outside the vault network automation of and inside the vault with a different license required for inside the vault automation.
 - i. Licenses
 - 1. Airgap basic
 - a. License required for the vault cluster using eyeglass DR license
 - 2. Airgap Enterprise
 - a. License required for vault agent VM deployment inside the vault
- c. Basic airgap will open and close the network by adding or deleting a static route to an ip pool connected to a private network that can reach the vault cluster for synciq replication.
- d. Enterprise airgap operates inside the vault on the vault cluster management network secured and closed network. The cluster IP interfaces are added or deleted to allow synciq to reach the vault cluster
- e. Management
 - i. During airgap sync operations alarms are retrieved from the vault cluster from an ssh session on the production protected cluster and requires the PAPI to be reachable to collect alarms using a vault minimum permissions user that is allowed to collect alarms. These alarms are proxied to users through Eyeglass email or syslog alarm subsystem.

- ii. Enterprise vault agent VM will push logs during airgap sync operations to Eyeglass VM using SSH and API to store logs on eyeglass for support purposes
 - iii. Scheduled airgap maintenance can be requested from eyeglass on an interval of every 2 hours (enterprise airgap) or on demand with basic airgap. This uses a heart beat process that checks for maintenance requests created using a CLI command on eyeglass. Maintenance activities would include debugging or software upgrades
- f. Reporting
 - i. Both versions offer reporting that tracks synciq replication using the reports to summarize success or failures and includes other metrics such as throughput, sync duration, quantity of data replicated. This report is scheduled daily and reports are visible in the airgap Icon management interface.
- g. Monitoring
 - i. Both versions offer monitoring of airgap job steps from the airgap management interface showing previous executions and access to reports that summarize replication status
 - ii. Proxy alarms from the vault hardware are viewable in the alarm icon interface
- h. Smart Airgap
 - i. This feature checks threat level determined by Ransomware Defender or Easy Auditor , if an active threat is raised in either product any scheduled sync to the vault is paused to keep the vault cluster offline. The administrator must clear the active alarms before normal sync operations will continue
- i. Configuration
 - i. Adding the static route, and service user to get alarms from the vault cluster and the schedule of data sync to the vault cluster
 - ii. Enterprise version also requires control of the schedules and must be enabled for Enterprise version

j. Data Security

- i. The solution adds significant protection to maintain an offline copy of data. The solution requires that operational steps are followed and all devices used in the airgap, including switches, routers, firewalls, vault cluster are patched regularly for security related patches, including the OS on all eyeglass VM's.
- ii. The solution reduces the potential of the data in the vault from being compromised but does not eliminate all possible attacks or threats to the data in the vault. Physical threat or insider threats or other threat risk is not reduced to zero percent possibility. The solution reduces this potential if all operational guidelines are followed. No guarantee or warranty is made about the threat reduction to zero or the possibility of compromising the vault data.

10. Installation Knowledge Transfer post installation

- a. The product installation process informs customers of the decisions they own to determine the protection and activation of protection features.
- b. The default product installation requires customer action to enter enforcement.

11. Operational Expectations for all deployments

- a. Ransomware Defender is a component of an overall security solution that must include the following best practices in order to correctly deploy a security solution. The operational steps below are expected to be followed for correctly using and integrating Ransomware Defender into a security solution.
 - i. A data security plan should include multiple layers of security including endpoint protection and a backup system to recover data. Ransomware Defender is not intended to replace other security solutions or backups of your data.
 - ii. Backup data should be stored off line so that it is not connected to the network. An offline backup is a requirement in all scenarios.

iii. Network monitoring tools, SIEM tools with logging and monitoring of all key components and high risk systems, including the storage environment.

iv. The specification and operational management of this product

Requires:

1. May not detect or prevent any or all malicious code or that use of the licensed program and related updates or upgrades will keep company's network or computer systems free from viruses or other malicious or unwanted content or safe from intrusions or other security breaches
2. Product usage assumes endpoint protection Anti-virus software is in place on all operating systems, devices, computers.
3. All computers with operating systems are patched regularly
4. All CVE's are acted upon with patches and remediation applied to all devices within the IT infrastructure.
5. All firewalls, security devices are running current versions and configured correctly to protect networks
6. The compute infrastructure is maintained and provides minimum product requirements for cpu, memory, disk latency.
7. The end users and IT are trained to respond to a Ransomware attack and have a run book to respond to an incident.
8. End users are trained regularly for phishing attacks and social attacks intended to compromise computers with Malware/Ransomware
9. All product alerts are acted on in a timely manner to ensure processing of audit data is protecting the file system.
10. Security guard product is monitored daily for proper product functionality

11. Honeypot feature is implemented fully to offer maximum security level of protection.

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1.4.2. DR Automation

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DR Product Specification

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 - [Terms](#)
- [Functional Specification Description](#)

Use of this document

This document is the functional specification definition of the product's functionality, including what the product can do, what it cannot do, operating instructions and functional use cases describing how it works.

Overview

The DR product automates failover steps, reports on replication, cluster configuration, syncs critical configuration between clusters to smb, nfs shares, quotas, snapshot schedules, access zones, nfs aliases, and dedupe settings. Automated failover testing features, closed network DR testing features, data migration, controlled and unplanned failover modes. 4 failover modes access zonem ip pool, DFS based, or synciq policy failover. Each offers automation and granularity of data to failover. Advanced options on how to sync configuration and scheduling of sync and DR readiness analysis jobs and

cluster inventory. A report engine also has scheduled jobs along with AD SId to user and group collection tasks.

Terms

1. Eyeglass GUI - User monitoring, alarms and user interface to interact with product configuration and threats raised.
2. ECA VM's - These are VM that process audit data and determine threats to production data.

Functional Specification Description

1. Dependencies
 - a. Cluster REST API
 - b. SSH access to cluster CLI
 - c. NTP
 - d. AD is responsible by the cluster
 - e. DNS
 - f. VMware , hyper-v, RHEL (extra license required not included in base license)
2. Installation
 - a. This product is recommended to be configured by professional services for complex DR requirements.
3. Functional Description
 - a. Sync critical configuration data
 - i. Shares
 - ii. Exports
 - iii. Nfs aliases
 - iv. Quotas

- v. Snapshot schedules
 - vi. Dedupe settings
 - vii. Access zone user mappings
 - viii. Access zones
- b. Automates the following failover steps
- i. AD spn's
 - ii. Smartconnect and aliases
 - iii. DNS redirection
 - iv. Shares, exports
 - v. Quotas
 - vi. DFS shares
 - vii. Synciq steps
 - 1. Run policy
 - 2. Allow writes
 - 3. Resync prep
 - 4. Run mirror
 - viii. Customer host scripts pre, post or unified scripts
 - ix. Logging and retry of key steps
 - x. Phased failover log
 - xi. Parallel failover
 - xii. Failover modes
 - 1. Zone
 - 2. Policy
 - 3. Dfs
 - 4. Ip pool
 - xiii. Types of failover
 - 1. Full failover
 - 2. Rehearsal partial failover production stays online
 - xiv. Options for failovers

1. Data synchronization
2. Config replication
3. Data integrity on source
4. Disable resync step
5. Disable policy post failover
6. Quota optional
7. Warning override

xv. Automation

1. Automated failover mode on schedule with data create validation step
2. 3rd copy access zone cloned data testing mode

xvi. Reporting

1. Cluster report of configuration including diff feature to compare
2. RPO report synciq 24 hour 30 and 60 day trending
3. Ondemand reporting
4. Automated reports

xvii. Alarms

1. Email
2. Webhook
3. Syslog
4. Snmp
5. Twitter

xviii. Data migration

1. Data plus configuration between access zones or clusters for data migration to new clusters or between zones

xix. Sync options for config

1. Sync always
2. Skip configuration

3. Hide shares
4. Change prefix on shares
5. Change pool mapping prefix name

xx. Diagnostics

1. Builtin log parsing
2. Lights out logs

xxi. Patching

1. Auto matching OS

xxii. Security

1. Encrypted all credentials with aes256
2. Allow signed certificates
3. No root process ownership
4. Sudo only to root
5. Random root password per appliance
6. Random encryption keys
7. RBAC
8. Hardening options for TLS and http headers
9. OS firewall
10. Os proxy support

xxiii. Remote support

1. Phonehome option with opt in
2. Outbound ports only over 443 https
3. Encrypt in flight and at rest
4. Auto purge support data

xxiv.

4. Operational Expectations for all deployments

- a. Run the latest release for all planned failovers. Recent releases address known issues in failover and prevent more scenarios

- b. Follow all operating procedures or you can risk data loss scenarios, understand data loss is possible in all failover modes
- c. Ensure all sizing guidelines are for memory cpu and disk are at or above published requirements, if not followed product functionality will be impaired
- d. Understand that data loss is expected when not stopping user application IO before starting a failover
- e. Review all release notes
- f. Follow all operational and planning guides
- g. Deploy warm standby eyeglass appliance to create off site backup of appliance backup
- h. Practice failover with runbook robot feature
- i. Train any new staff with free hands on training on supernaeyeglass.com
- j. Read all pre failover planning guides, checklists and practise data access guides for windows and links
- k. Always have SME for AD, DNS, OS, networking/firewall, cluster administrator and application teams available during failover
- l. Remaining logged into the support site for rapid support
- m. Monitor alarms daily and act on them to resolution for DR readiness
- n. Local users are not synced by design due to passwords (affects ACL's and SMB shares with local users, DR requires AD security in place.
- o. No failover time is guaranteed due to external factors to the product
- p. Data access is a mandatory requirement post failover to be carried out by application or NAS administrator.
- q. Failover errors may require manual steps to be executed by customers, if api calls fail it is design intent for manual steps to recover as provided by support. Customers must have the required administrative access to complete these steps.

- r. If an uncontrolled failover is executed, recovery back to a normal working state is expected to be a manual custom procedure demanding on the nature of the failure. Not all recovery options are documented.
- s. The product attempts to detect many pre-failover conditions. It is expected that many more conditions exist that will or could affect failover operations and this is expected. Customers should plan on a recovery plan if failover does not execute as planned.
- t. After failover successful data access has many external dependencies some of which are AD, vmware, hosts, networking, firewalls, DNS, NTP. If all post failover access dependencies are not available data access outage will occur. This is external to the product and is a customer planning requirement.

1. Patching

- a. The product does not support hotfix patching and requires a complete upgrade of the software version or build number to apply any patch
- b. Operating system patches are not provided and must be downloaded directly from online official open suse repositories

2. Compatibility

- a. The product does not support forward compatibility with target devices and will require a software upgrade to support a forward version of a target device. This includes minor or build number changes of the target device.

3. Appliance Modifications

- a. Modifying the operating system packages, removing or adding packages, changing the OS configuration and support of these changes is not covered by support and customers must support OS modifications and perform necessary testing. No support for customer modifications with the exception of applying open suse OS package patches that shipped with the original appliance or published procedure in documentation.

4. Operational Procedures

- a. If documentation does not list a procedure, it is explicitly unsupported unless support provides a procedure.

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1.4.3. Easy Auditor

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Easy Auditor Product Specification

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Use of this document

This document is the functional specification definition of the product's functionality, including what the product can do, what it cannot do, operating instructions and functional use cases describing how it works.

Overview

The Easy Auditor product collects audit data, compresses it, and stores it in an indexed database using HDFS protocol and Isilon. The product allows searching the historical audit data by user , path , event and date range. The product also allows real-time analytics of audit data with pre-built triggers and custom triggers.

Terms

1. Eyeglass GUI - User monitoring, alarms and user interface to interact with product configuration and threats raised.
2. ECA VM's - These are VM that process audit data and determine threats to production data.

Functional Specification Description

1. Dependencies
 - a. Cluster REST API
 - b. SSH access to cluster CLI
 - c. AD reachable by the cluster
 - d. Auditing enabled on all zones
 - e. NFS mount to the cluster
 - f. Licenses for Easy auditor assigned to managed clusters
 - g. Network for NFS and HDFS stable with low latency
 - h. Auditing settings are as per documentation
 - i. NTP
 - j. NFS mount to monitored clusters
 - k. DNS
 - l. Only available in vmware OVA, Hyper-v
2. Installation
 - a. This product is not customer installable and must be installed and configured by professional services for correct deployment and validation of the software integration with the cluster.
3. Functional Description

- a. Ingest audit data over NFS from monitored clusters. NOTE: Stable network is required to ensure NFS mount does not go stale.
- b. Stable network to allow storing HDFS data on the cluster
- c. Indexing function uses HBASE tables, all customers are expected to set a retention in days on audit records. If no retention is configured additional ECA resources will be required to manage the size of the database.
- d. Backup and protection of the audit database requires scheduled snapshots and synciq to protect the historical audit data.
- e. Real time Analysis functions are limited to a specific number of triggers, expanding this limit requires additional ECA VM's to scale out the processing. This may include increased memory for VM's from the default memory of the appliance.
- f. Builtin reports may not address all audit use cases , specifically ACL evaluation.
- g. Audit data stored and processed is audit success events
- h. Configuration auditing is a different audit log separate from protocol auditing. This audit data is not processed or stored.
- i. Dedicated access zone to storage HDFS data is mandatory to ensure no inherited permissions break HDFS ACL's required for normal operations
- j. Audit data ingestion process needs to process archived GZ files on the cluster, this takes time when an active audit event is archived. This process may mean audit data lag occurs and is not present in the audit database and may require reingestion using manual script to read in GZ files. This is only required if the audit data is deemed missing from a search

4. Operational Expectations for all deployments

- a. Audit data that is gz archived should always be archived for long term storage since it can be ingested and indexed at a later date.
- b. Monitoring robo audit is a mandatory feature to verify normal audit data ingestion, storing and searching. It is expected that customers monitor

this feature and all alarms that indicate an issue with audit data processing.

- c. Audit data GZ files should not be left in the active audit folder once the file count exceeds 500 GZ files per node folder.
- d. Changes made via ssh are not audited as per Isilon/PowerScale functionality
- e. Audit events that are not enabled on the cluster will not be visible in Easy Auditor
- f. Cluster known audit data case issue can break the case of audit data produced by using the mount case. This issue is external to Easy Auditor and no fix planned by Dell , customers must follow tech note limitations [Technical Advisory #20 - PowerScale Auditing incorrectly records audit events for paths that do not exist on the cluster when SMB share is mounted with subfolders with a case that does not match the file system](#)
- g. No guaranteed time to complete search results, environmental conditions dictate search performance, number of nodes in the HDFS pool, node type and latency of disks in the VM's
- h. Product limits results returned to 1M due to practical size of data to open in spreadsheets
- i. Number of triggers that can be defined is limited by resources as per product documentation.
 - i. Triggers can result in false positives and if misconfigured missed triggers will result.

5. Patching

- a. The product does not support hotfix patching and requires a complete upgrade of the software version or build number to apply any patch
- b. Operating system patches are not provided and must be downloaded directly from online official open suse repositories

6. Compatibility

- a. The product does not support forward compatibility with target devices and will require a software upgrade to support a forward version of a target device. This includes minor or build number changes of the target device.

7. Appliance Modifications

- a. Modifying the operating system packages, removing or adding packages, changing the OS configuration and support of these changes is not covered by support and customers must support OS modifications and perform necessary testing. No support for customer modifications with the exception of applying open suse OS package patches that shipped with the original appliance or published procedure in documentation.

8. Operational Procedures

- a. If documentation does not list a procedure, it is explicitly unsupported unless support provides a procedure.

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1.4.4. Performance Auditor

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Performance Auditor Product Specification

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Use of this document

This document is the functional specification definition of the product's functionality, including what the product can do, what it cannot do, operating instructions and functional use cases describing how it works.

Overview

The Performance Auditor product collects audit data and performance real time analysis and produces summary metrics that are in a relational format. This relational format allows viewing performance data from any metric and seeing the impact of the other metrics because of the relationships stored with the performance data. The

metrics that are related are the cluster nodes, users (AD or NFS), files, source subnets and applications.

This performance data can be viewed in real-time and navigate the relationships between the metrics. The performance data is also stored in a circular log to allow replay, pause, fast forward and rewind historical performance data to troubleshoot issues that happened in the past.

The application also provides a view of application protocol requests over SMB, NFS or HDFS protocols. This provides insight into how an application is making requests for data, either a read or write request. This information can be used to determine the relative performance of the application based on how it's asking for data from the storage.

Terms

1. Eyeglass GUI - User monitoring, alarms and user interface to interact with product configuration and threats raised.
2. ECA VM's - These are VM that process audit data and determine threats to production data.

Functional Specification Description

1. Dependencies
 - a. Cluster REST API
 - b. SSH access to cluster CLI
 - c. NTP
 - d. Cluster can reach AD
 - e. Audit data can be processed

- f. License is assigned correctly to the monitored cluster
- g. Event types are set according to documentation for expected product functionality
- h. NFS mount to monitored clusters
- i. DNS
- j. Only available in vmware OVA, Hyper-v

2. Installation

- a. This product is not customer installable and must be installed and configured by professional services for correct deployment and validation of the software integration with the cluster.

3. Functional Description

- a. Process audit data
- b. Split audit data into 5 different metrics (nodes, users, hosts, subnets, applications, files)
- c. Make relationships between the metrics
- d. Identify the top 5 resource consumers in each metric category (find all consumers and sort from highest to lowest, and store top 5 in each category)
- e. Break down all metrics into read, writes in MB's and application requests (reads and writes)
- f. Perform the above functions over 1 second duration and build a time series record of performance metrics with all relationships between them maintained.
- g. The historical records should automatically purge after a period of time to avoid fill the disk with old historical data
- h. Publish a subset of the performance records into a longer term time series database to be available for graphing with Graphana to trends and graphs of the time series performance data

- i. The product can also target data collection of nodes, users, files, subnets that are not in the top 5, this triggers audit data collection and analysis to be included in the time series data. This is only available with a single endpoint due to the processing demands for the analysis. This endpoint metric can be changed to another endpoint at any time. Data collected will be available in the historical data.
- j. Multiple clusters can be monitored but viewing of a single cluster at time is the only option in the UI.
 - i. Switching between clusters is possible in the UI
 - ii. The UI displays a connection to the stats stream and will show connected or not connected if a network issue is blocking a connection to the backend stats
 - iii. The UI displays the freshness of the data by showing the timestamp of the data that is being viewed.
 - iv. Settings allow sorting the UI from high to low or low to high
 - v. The lag is also shown in seconds, indicating how far behind the event time the dashboard represents. For example, the processing of audit data could be behind for several minutes and you this information is important to understand to interpret the performance data.
- k. The UI allows display of rates using KB, MB, GB for throughput and can be switched if the metric value is easier to understand with a different rate in the display.
- l. Switching from metrics that are rate based or application protocol requests is possible in the settings.
- m. Applications are defined by file extensions and all performance data is collected and summarized by the application extension when stored.
- n. The UI allows selecting a Main metric “View” The Views align to the 5 key metrics nodes, files, users, subnets and applications

- i. Once selecting a view clicking an entry in the UI will display that selected (node, file, user, subnet, application) details to show read and write MB rate for the selected object.
- ii. If you unselect the object you are viewing cluster wide analysis of the top 5 consumers in the selected view.
- iii. The display shows 1 second updates of all 5 metric categories related to each other from the real-time analysis engine.
- iv. The analysis is using stream based analytics technology
- v. The rewind historical view allows moving through the data forward or backward with control buttons and pause play and step forward backyard buttons.
- vi. Jumping to a date and time is also possible with the playback controls. 14 days of data is stored until overwritten.
- vii. A time series book mark can be copied and shared with someone to load the exact time period into another session at a later time or someone using a different login.

4. Operational Expectations for all deployments

- a. Monitor the performance of the UI to verify performance data is being collected.
- b. If you select historical day and time and the displayed date and time is different it indicates the data does not exist in the time series database and that it's been purged already.
- c. Verify all alarms daily to ensure that audit data is being collected correctly and if not take corrective action.
- d. Ensure audit data is enabled with the required audit event types to support performance auditing product.
- e. Ensure the cluster has been licensed in the GUI and a license has been assigned to the cluster you want to monitor
- f. Ensure the NFS mount is in place for the cluster to be monitored
- g. Ensure auditing is enabled on the cluster for all access zones that require performance monitoring

- h. If network issues block reading audit data or the license was not assigned or if the NFS mount is not in place, it will not be possible to collect or re-ingest old audit data to be analyzed.
- i. If the event rate or number of monitored clusters exceeds resources performance data will not be written correctly or will lag behind by minutes or hours. More resources are expected to be added to maintain real time processing.

5. Patching

- a. The product does not support hotfix patching and requires a complete upgrade of the software version or build number to apply any patch
- b. Operating system patches are not provided and must be downloaded directly from online official open suse repositories

6. Compatibility

- a. The product does not support forward compatibility with target devices and will require a software upgrade to support a forward version of a target device. This includes minor or build number changes of the target device.

7. Appliance Modifications

- a. Modifying the operating system packages, removing or adding packages, changing the OS configuration and support of these changes is not covered by support and customers must support OS modifications and perform necessary testing. No support for customer modifications with the exception of applying open suse OS package patches that shipped with the original appliance or published procedure in documentation.

8. Operational Procedures

- a. If documentation does not list a procedure, it is explicitly unsupported unless support provides a procedure.