



2023 Fixed Indexed Annuity Contract Holder Behavior Experience Study Data Request FEBRUARY | 2025



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2023 Fixed Indexed Annuity Contract Holder Behavior Experience Study Data Request

Request for Data Contributions

The Society of Actuaries (SOA) Research Institute's Individual Annuity Experience Committee (IAEC) and LIMRA are soliciting surrender/lapse, withdrawal, living benefit utilization, annuitization, and premium deposit experience for fixed indexed annuities (FIAs) both with and without a guaranteed living benefit offering for contract year 2023 (from contract anniversaries in 2023 to contract anniversaries in 2024).

This document describes the procedures for submitting contract- and product-level data for the study.

Purpose and Scope of the Study

The SOA Research Institute and LIMRA are partnering together to complete industry experience studies. Under this partnership, the SOA Research Institute's IAEC and LIMRA plan to complete an update to the Individual Annuity FIA Contract Holder Behavior Experience Study completed in 2024 and covering experience for contract years 2021-2022.

The scope of this experience study is for fixed indexed annuity contracts with and without market value adjustments (MVAs). This study **does not** include fixed rate deferred annuity contracts, which are the subject of a separate study.

The goals of this update are to:

- Provide a detailed analysis of contract persistency, withdrawal activity for all FIA business as well as utilization rates for FIA contracts with guaranteed lifetime withdrawal benefits (GLWBs).
- Provide an update on other contract owner activity including additional premium deposits, rates of annuitization and step up activity.
- Analyze the experience by several factors, including: age of owner, source of funds, distribution channel, contract duration, in-the-moneyness of the benefits, product and rider features, and the type of benefit calculation.

Form of Data Contributions

A detailed description of the data request documents can be found in Appendices A and B.

Contract Level Data

Contract level data can be submitted in one of the following file formats, which must use the ASCII character set:

- Fixed width Text (.txt) using specified columns to denote data elements.
- Delimited text files (comma separated values (CSV), tab delimited or other)
- For formats that do not match the enclosed format specifications, column headings and/or attached mapping instructions are required.

Product and Rider Level Data

For this study, product and rider level data will also be collected. For each product and GLWB rider your company includes in this study, whether or not the product or rider is currently being sold, describe the product and rider features by completing the accompanying Excel form (2023 FIA Product and Rider Info.xlsx). Further instructions are contained within the form. Please do not alter the format of the workbook. We believe this will be an important update to the FIA data given that the experience period of this study will include the fluctuating interest rate environment we saw in 2023.

Important Dates

We request your intent to participate and provide data for the study. Please provide your response to <u>StudyPro@soa.org</u> by **February 28, 2025**.

Your timely data submission is a valuable contribution to this Study. If you have indicated that you intend to participate in the study by submitting data, we request your data, as described in the following section, no later than March 31, 2025. If you would like to contribute, but find that this timing is challenging, please contact <u>StudyPro@soa.org</u> to discuss options.

Once your company's intent to participate has been received, we will send you a confidential company ID code.

Data Transmission Instructions

The SOA Research Institute and LIMRA have partnered to validate, compile, and aggregate the data for this effort. When you are ready to submit your data, please send an email to <u>SOADataTransmissions@limra.com</u> and LIMRA will work with you to securely facilitate the data transmission.

Study Outputs

A report with high level summary results of the study will be made publicly available.

To align the costs to produce this study with the entities who have the most interest in the results, the SOA Research Institute and LIMRA will offer the detailed outputs of this study for a fee. The following may be included in the outputs available for purchase:

- detailed experience study report with analysis and commentary;
- a set of data visualization dashboards with the ability to filter on and drill down into the detail of the results of the study;
- dataset(s) containing the aggregated experience collected for the purpose of this study. The datasets may be made available in excel files, text files or downloads from the data visualization tool;
- models or other tools developed to support the analyses completed in the study; and
- other outputs as determined by the SOA Research Institute and LIMRA.

Any output of the study, whether publicly available or available for purchase, will not contain any private information or any confidential contributor level information.

Benefits to Data Contributors

Data contributors will be acknowledged in the study output. Their experience data will be part of a broad industry study that will benefit the industry. The experience data for this study will/may be compared against current industry standard valuation assumptions and significant variance from the current standard may trigger the development of new standards. In such a situation, the data from this study may be used as the basis to develop new valuation standards. Data contributors will benefit from having their company's data be included in the comparison to standard valuation assumptions and from being included in the basis for any new valuation standards.

Data contributors whose data is retained for inclusion in the study and who purchase the available study outputs will also receive the following benefits:

- the purchase fee for data contributors will be discounted relative to the purchase fee for non-data contributors. The data contributors' fee is expected to be at a nominal level;
- the ability to see their own experience results compared to the industry results in any available data visualization dashboards or excel pivot tables;
- the option to choose a set of 5 or more peer companies from the companies who provided data to the study and compare the results of these peer companies to their own company results;
- the opportunity to have a meeting with the SOA Research Institute and LIMRA researcher(s) who performed the analyses for the study. At this meeting, the contributor will be able to quickly gain deeper insights into the results and questions in specific areas of interest.

Data Access, Ownership and Retention

The SOA Research Institute and LIMRA have partnered together to collect and process experience data for this effort. The data collected under this partnership will be processed and housed within LIMRA's existing study data infrastructure. The agreement between the SOA Research Institute and LIMRA includes provisions to ensure the data is kept secure and confidential. Only SOA Research Institute and LIMRA staff directly involved with the project will have access to the original data. SOA Research Institute volunteers working on the experience analysis and table development will not have access to original data. For more information on LIMRA's information security program, please see the LLG (LIMRA) Governing Information Security Policy in the Appendix D.

The SOA Research Institute and LIMRA will create aggregated datasets from the original data contributions for the purpose of completing this effort. These aggregated datasets will not contain any personally identifiable information (PII). All aggregated datasets compiled by the SOA Research Institute and LIMRA from the original data contributions will be the property of the SOA Research Institute and LIMRA. Only SOA Research Institute staff, LIMRA staff, or contracted independent consultants will have access to contributor-level data. The aggregated datasets may be used for future research, education or other purposes and offerings, as deemed appropriate by the SOA Research Institute or LIMRA.

APPENDIX A – Data Request Description

Data submissions for this study will include the following types of information:

- 1. Product and Rider Level Data
- 2. Contract Level Data

Product and Rider Level Data

For each product and GLWB rider your company includes in this study, whether or not the product or rider is currently being sold, describe the product and rider features by completing the accompanying Excel form (2023 FIA Product and Rider Info.xlsx). Further instructions are contained within the form.

Note that for companies that have participated in the study in the past, this form will only need to be updated for any new products or product revisions since the last submission. LIMRA can provide a copy of the completed form from the previous study upon request.

Contract Level Data

The information at the individual contract level should be submitted on a seriatim basis for deferred FIA contracts from your company's in-force business for the contract year of observation.

Draw the records from the group of FIA contracts in force at the beginning of each contract year or issued between January 1 and December 31 of that year. The data set should include both contracts that remain in force until the end of that contract year and contracts that terminated before the end of the contract year. Include single- and flexible-premium products. Contracts should be included regardless of whether they have a GLWB or other type of guaranteed living benefit elected.

Exclude all types of variable annuities and traditional, fixed-rate annuities. Exclude annuities sold within employer-sponsored plans such as 401(k), 403(b), 457, Keogh, SEP-IRAs, and SIMPLE plans. Also exclude any contracts sold outside the US and its territories.

Please refer to the "Data Request Layout" in Appendix B when assembling your company's data.

- Contract level data can be submitted in one of the following file formats, which must use the ASCII character set:
- Fixed width text (.txt) using specified columns to denote data elements.
- Delimited text files (comma separated values (CSV), tab delimited or other)
- For formats that do not match the enclosed format specifications, column headings and/or attached mapping instructions are required.

APPENDIX B – Data Request Layout (Contract Level)

If any data item is not available, leave the field blank; do not code missing items as zero. For dollar amounts, do not include dollar signs, commas, decimal points, or cents – round to the nearest dollar. Express percentages as integer amounts (ex. 50 (50 percent), 7.5 (7.5 percent)).

Position	Data Item	Data Abbreviation	Description and Comments
1-4	Company code	LIMRA	Please contact LIMRA for your company's 4-digit code
5-24	Contract number	CONTRACT	If this number is alphanumeric, include alphabetic codes. Contract IDs should be unique. For contracts present for multiple study years, consistent IDs should be used across study years and across previous study data submissions. If this is not possible, please contact us for guidance. For data security reasons, we request that you provide a de- identified contract ID rather than the actual contract number associated with the contract owner(s). If your company has participated in this study in previous years, it is important that the contract IDs submitted for contracts in this study are consistent with those submitted for previous studies. This will allow us to provide more accurate and credible data regarding the start of withdrawals by contract year and attained age.
25-34	Plan code	PLANCODE	Plan codes are used to link each contract with a specific product. The plan codes provided in the contract data file should match with plan codes provided in the product-level data (see separate Excel product and rider data workbook). While a product can have multiple plan codes, a plan code can only be matched to a single product. Leading zeros may be used for numeric codes and leading blanks may be used for alpha codes.
35-38	Contract year of observation	OBSYEAR	2023 See Glossary for definition of contract year of observation.
39-40	Month contract was Issued	MOISS	1-12
41-42	Day of month contract was issued	DAYISS	1-31
43-46	Calendar year contract was issued	YRISS	4-digit year

47-47	Market type	МКТҮРЕ	1= IRA, 2= Nonqualified, 3= Roth IRA
Position	Data Item	Data Abbreviation	Description and Comments
48-57	Account value at beginning of contract year	AVBOY	Report account value before surrender charges as of the beginning of the contract year. The account value should include any amounts credited to the contract for this anniversary. Use end-of-month values if account value as of anniversary date cannot be provided. Newly issued contracts should report the current-year premium.
58-67	Account value at beginning of next contract year	NAVBOY	Report account value before surrender charges as of the next contract anniversary. For example, for contract year of observation 2021, report the contract's 2022 anniversary value. The account value should include any amounts credited to the contract for this anniversary. Use end-of- month values if account value as of anniversary date cannot be provided. Leave blank for contracts that terminated during the contract year of observation.
68-68	Status code	STATCODE	By the end of the contract year: 0=Contract in force 1=Contract terminated for reason of death 2=Contract transferred to annuity payout status (annuitized) 3=Contract terminated due to full surrender or replacement
69-70	Month of status change	MOSTAT	1-12
71-72	Day of status change	DAYSTAT	1-31
73-76	Year of status change	YRSTAT	4-digit year of status change. This year may or may not equal the contract year of observation.
77-86	Account value at time of full surrender	AV_SURR	Report account value before surrender charges at time of full surrender. If account value as of full surrender date is not available, use end of prior month value. Leave field blank if contract not surrendered.
87-96	Surrender charge at time of full surrender	SC_SURR	Report dollar amount (not percentage). Code as 0 if no charge. Leave field blank if contract not surrendered.

Position	Data Item	Data Abbreviation	Description and Comments
97-109	Open Field		Leave blank.
110-116	Market-value adjustment assessed on transaction at time of full surrender	MVA_SURR	Report dollar amount (not percentage). Code as 0 if no adjustment. Enter negative value if surrender resulted in an <i>increase</i> in the surrender value. Leave field blank if contract not surrendered.
117-126	Theoretical surrender charge, beginning of contract year	TSC_BOY	Report surrender charge amount (not percentage) that would have been incurred if owner fully surrendered the contract on the anniversary date. Include charge assessed on amount withdrawn that exceeds the penalty-free amount, if applicable. Newly issued contracts should report the theoretical surrender charge at the time of issue. Code as 0 if no charge would have been applied.
127-136	Total partial withdrawals during contract year	PWITHD	Sum of <u>all</u> partial withdrawals (i.e., those taken under terms of GLWB or not under the GLWB, systematic, and non-systematic) during contract year. Do not include full surrender amounts.
137-146	Partial withdrawals under the terms of GLWB during contract year	PWITHD_GLWB	Sum of all partial withdrawals taken under the terms of the GLWB (systematic and non-systematic) during contract year (during GLWB income phase). This amount should be a subset of the field above and should include the value of systematic withdrawals taken under the terms of the GLWB. See glossary for definition of GLWB benefit activation.
147-156	Total systematic withdrawals during contract year	SWITHD	Sum of all systematic withdrawals during contract year – whether or not they are under the terms of the GLB. RMDs should be included if these are set to be automatically withdrawn. Systematic withdrawals refer to a series of annual payments or regularly-scheduled payments as requested by the owner.

Position	Data Item	Data Abbreviation	Description and Comments
157-166	Systematic withdrawals under terms of the GLWB during contract year	SWITHD_GLWB	Sum of all systematic withdrawals during contract year (only systematic withdrawals under terms of the GLWB). This amount should be a subset of the field above. RMDs should be included if these are set to be automatically withdrawn. Systematic withdrawals refer to a series of annual payments or regularly-scheduled payments as requested by the owner.
167-167	Contract ownership	OWNER	1=Single 2=Joint 3=Other
168-171	Primary annuitant's year of birth	YRBIRTH	4-digit year.
172-173	Primary annuitant's month of birth	MOBIRTH	1-12
174-175	Primary annuitant's day of birth	DAYBIRTH	1-31
176-176	Sex of primary annuitant	SEX	1=M, 2=F
177-180	Secondary annuitant's year of birth	S_YRBIRTH	4-digit year. Leave blank if no secondary annuitant.
181-182	Secondary annuitant's month of birth	S_MOBIRTH	1-12. Leave blank if no secondary annuitant.
183-184	Secondary annuitant's day of birth	S_DAYBIRTH	1-31. Leave blank if no secondary annuitant.
185-185	Sex of secondary annuitant	S_SEX	1=M, 2=F. Leave blank if no secondary annuitant.
186-186	Distribution channel	DISTRIB	See Glossary for definitions 1=Career agent 2=Independent agent 3=Full-service national broker/dealer 4=Independent broker/dealer 5=Bank 6=Direct response 7 = RIA/advisor 9 = Unknown

Position	Data Item	Data Abbreviation	Description and Comments
187-196	Current-year premiums collected	CURPREM	Sum of all premiums received during contract year. For second-year and later contracts, this represents only additional deposits to the contract by the contract owner during the contract year of observation.
197-206	First-year premiums collected	FPREM	Same as current-year premiums amount if issued during contract year. If issued prior to the current contract year of observation, this should only include premiums deposited in the first contract year.
207-216	Cumulative premiums collected since date of issue, as of beginning of contract year	CUMLPREM	Set to zero for contracts issued during the contract year of observation. Same as first-year premiums amount if issued in the previous contract year.
217-226	Cumulative withdrawals since issue, as of beginning of contract year (all withdrawals)	CUMLWITHD	Leave blank if contract issued during current year. Include <u>all</u> withdrawals since issue (both systematic and non systematic and those under the GLWB and not under the GLWB). Leave blank if no withdrawals taken.
227-232	Cumulative withdrawals since issue, as of beginning of contract year (only withdrawals under terms of the GLWB)	CUMLWITHD_GLWB	Leave blank if contract issued during current year. Include all withdrawals since issue both systematic and non systematic but only those taken under the GLWB. This amount should be a subset of the field above. Leave blank if no withdrawals taken under terms of the GLWB.
233-233	Guaranteed death benefit type	DEATHBEN	1=Current account value 2=Enhanced (typically some combination of roll up rate and step ups) 3=Other (please explain in product specifications)
234-234	Guaranteed living benefit rider type	GLB_TYPE	1 =GLWB - lifetime withdrawal benefit 2 =Other 3 =None

Position	Data Item	Data Abbreviation	Description and Comments
	GLWB-SPECIFIC VARIABLES		If "Guaranteed living benefit rider type" = 1 GLWB, please complete next section. Leave remaining fields blank if the contract does not have a GLWB.
235-236	Rider version code	RIDER_VERSION_CO DE	Enter code (1 to 99). This value must match the rider version codes provided in the "GLWB specs" tab of the product data workbook submitted along with the contract level data.
237-240	Year rider effective on contract	YR_EFF	Report 4-digit calendar year in which rider became effective on contract. Effective date equals the start of the GLWB waiting period or the date the rider was elected if the rider has no waiting period.
241-242	Month rider effective on contract	MO_EFF	01-12
243-244	Day rider effective on contract	DAY_EFF	01-31
245-247	Rider charge in effect during year	RIDER_CHARGE	In basis points (1-999)
248-251	Primary covered life's year of birth	PC_YRBIRTH	4-digit year. "Covered life" refers to the individual on whom the GLWB withdrawal schedule is based.
252-253	Primary covered life's month of birth	PC_MOBIRTH	01-12
254-255	Primary covered life's day of birth	PC_DAYBIRTH	01-31
256-256	Sex of primary covered life	PC_SEX	1=M, 2=F
257-260	Secondary covered life's year of birth	SC_YRBIRTH	4-digit year. Based on spouse or other individual on whom withdrawal schedule is based, if joint lives payout.
261-262	Secondary covered life's month of birth	SC_MOBIRTH	01-12

Position	Data Item	Data Abbreviation	Description and Comments
263-264	Secondary covered life's day of birth	SC_DAYBIRTH	01-31
265-265	Sex of secondary covered life	SC_SEX	1=M, 2=F
266-275	Benefit base, beginning of contract year	BENBASE_BOY	See Glossary for definition For benefit bases that are credited less frequently than annually, enter benefit base as of the date last credited. For newly issued contracts, set equal to current-year premiums paid.
276-280	Maximum annual withdrawal <u>percentage</u> under terms of GLWB, beginning of contract year	MAX_PERC_BOY	Up to two decimal places: XX.XX. Do not include percent sign. For example, "4.5%" should be submitted as "4.50". If owner commenced withdrawals during the current contract year or a previous contract year, enter the maximum annual percentage applicable to the contract. If owner has not yet commenced withdrawals, enter the hypothetical maximum annual withdrawal percentage that would apply if withdrawals were to commence at the start of the current contract year. If the GLWB offers single-life and joint-lives payouts, assume a single-life payout.

Position	Data Item	Data Abbreviation	Description and Comments
281-290	Maximum annual withdrawal <u>amount</u> under terms of GLWB, beginning of contract year	MAX_AMT_BOY	If owner commenced withdrawals during the current contract year or a previous contract year, enter the maximum annual percentage applicable to the contract. If owner has not yet commenced withdrawals, enter the hypothetical maximum annual withdrawal amount that would apply if withdrawals were to commence at the start of the current contract year. If the GLWB offers single-life and joint-lives payouts, assume a
	Guaranteed interest rate applied to benefit base during	GTD_INTRATE	Up to two decimal places: XX.XX. Do not include percent sign.
291-295	contract year		
	Indexed /earned interest <u>rate</u>	INT_RATE_APPLIED	Report additional credit applied to the GLWB benefit base, based on indexed interest, beyond guaranteed interest (for "stacked" benefit crediting designs).
	applied to benefit base during contract year		Report percentage up to two decimal places: XX.XX. Do not include percent sign.
296-300			Leave blank if unknown.
	Indexed /earned interest <u>amount</u> applied to benefit base	INT_AMT_APPLIED	Report additional credit applied to the GLWB benefit base, based on indexed interest, beyond guaranteed interest (for "stacked" benefit crediting designs).
301-310	during contract year		Report dollar amount. Leave blank if unknown.
301-310			
311-320	Benefit base at beginning of next contract year	NBENBASE_BOY	For benefit bases that are credited less frequently than annually, enter benefit base as of the date last credited. If GLWB was cancelled during contract year, code as zero (do not code as blank).
321-324	Year withdrawals under terms of GLWB began	YR_WITHD_START	4-digit calendar year that owner first began to take withdrawals under the terms of the GLWB. This year may or may not equal the contract year of observation.
325-326	Month withdrawals under terms of GLWB began	MO_WITHD_START	1-12
327-328	Day withdrawals under terms of GLWB began	DAY_WITHD_START	1-31

Position	Data Item	Data Abbreviation	Description and Comments
329-330	Month GLWB terminated during contract year	MO_WB_TERM	1-12. Leave blank if rider not terminated during year.
331-332	Day GLWB terminated during contract year	DAY_WB_TERM	1-31. Leave blank if rider not terminated during year.
333-333	Open field		Leave blank.
334-334	Open field		Leave blank.
335-335	Lifetime payout selected	LIFEPAYOUT	1 - Single life 2 - Joint lives
336-337	State of contract issue	STATE	Use standard state abbreviation codes (e.g., NY for New York). All U.S. territories and non-state areas (e.g., Puerto Rico, American Samoa, U.S. Virgin Islands, District of Columbia) are included.
338-342	Zip code of primary annuitant's residence (Optional field)	ZIP	5-digit code

Glossary

Benefit Base

The benefit base generally equals the initial premium received (and premium bonuses, if applicable), plus additional premium, rollups, ratchets, or step-ups, less cumulative withdrawals under certain circumstances. The maximum annual withdrawal amount usually represents the product of the benefit base and the applicable maximum annual withdrawal percentage. If the cumulative withdrawals exceeded the annual benefit maximum withdrawal amount in the year in which they occurred, the excess withdrawal amount may have reduced the benefit base proportionally to the account value or have had a dollar-for-dollar reduction. If the cumulative withdrawals were equal to or less than the maximum withdrawal amount, there should not have been any decrease in the benefit base.

Contract Year of Observation

Contract year of observation X is defined for purposes of this study as: the period from the anniversary in calendar year X+1. For example, for a contract issued on 7/1/2019, contract year 2023 runs from 7/1/2023 to 7/1/2024.

Distribution Channels

Career agents includes agents and multiple-line exclusive agents who devote at least 75 percent of their time selling one insurance company's products. Companies generally provide financing, training, supervision, and office space.

Independent agents includes PPGAs and life brokers using company's own broker-dealer. PPGAs are experienced, full-time producers who earn commissions plus overrides on personally produced business. Life brokers have no primary company relationship and are paid straight commissions only (no overrides). Also included in this category is any other type of independent agent.

Full service national broker-dealers includes national wirehouses and large regional broker-dealers.

Independent broker-dealers includes sales by representatives who sell through independent FINRA firms. Excludes national wirehouses and large regional broker-dealers, sales through a company's own brokerdealer, and FINRA firms that market through banks/S&Ls

Banks includes sales through banks, credit unions, and FINRA firms that market through banks and/or savings and loan companies (S&Ls).

Direct response includes sales made by salaried employees, direct mail, and telemarketing. Employees may be paid incentives or bonuses; however, no commissions are paid.

RIA/advisor channel includes fee-based sales through financial planners and registered investment advisors.

GLWB Benefit Activation / Taking Withdrawals Under Terms of GLWB

The contract owner has requested to receive, on an ongoing basis, an amount up to the maximum annual withdrawal amount permitted under the terms of the GLWB rider. The amount requested can be received in a series of annual payments or in regularly-scheduled payments during the year (i.e., systematic

withdrawals). The owner request to activate the GLWB/GMWB may have occurred prior to or during the contract year of observation.

For IRA owners over age 70½ or 72 for those reaching 70 after 7/1/19, the owner will be considered to be taking withdrawals under the terms of the GLWB if s/he requests the required minimum distribution (RMD) amount, even if this value exceeds the maximum annual withdrawal amount determined by the benefit calculation method for the rider, as long as the rider permits these withdrawals (i.e., is "RMD friendly").

Withdrawals occurring prior to the minimum age of onset of lifetime withdrawals should not be considered to be under the terms of the rider unless a) the rider allows such withdrawals to be treated as guaranteed *non-lifetime* withdrawals, and b) the owner takes out an amount less than or equal to the maximum annual non-lifetime withdrawal amount during the year.

APPENDIX C – Confidentiality of Data

The SOA Research Institute and LIMRA have been conducting industry research studies for many years and realize the importance of maintaining utmost confidentiality of data. All data will be treated with complete confidentiality. Detailed, aggregate results will be compiled in summary reports which will be available to purchasing companies. Some select, high-level results may also be used in public reports and public forums such as conference presentations, press releases and articles in trade publications.

No information from individual participating companies will be identified, nor will the data be shown in a fashion whereby individual company results can be identified either in the summary report or the public forums listed above. The SOA Research Institute and LIMRA reserves the right to release confidential information under a valid order created by a court or government agency. A list of all participating companies will be included in the report.

APPENDIX D - LLG Governing Information Security Policy

LLG Information Technology has created and maintains a comprehensive information security program called Governing Information Security Policy for LLG. This program covers information security, risk assessment, and privacy for all LLG IT activities. The program ensures that LLG has in place adequate technical, administrative, and physical safeguards to protect sensitive information. LLG's Chief Information Security Officer is the owner of the program document, and reviews and updates it annually.

1. Zero Trust Architecture Model

LLG's security model is centered on the belief that devices are not to be automatically trusted inside or outside our perimeters. All connections must verify and continually be verified they meet a defined set of requirements before being granted access as well as ongoing access.

2. Physical Security

LLG has industry best practice physical controls to protect staff, information, and guard against intrusion theft, damage, and unauthorized access. A badge reader system controls access to LLG's facilities, computer rooms, and areas where sensitive information is stored. Employees, contractors, and consultants have photo ID badges, that must be prominently displayed. Visitors and third parties must be provided with badges that are prominently displayed at all times during their use of LLG's buildings. LLG IT maintains procedures to ensure that computer and communications rooms are secured and protected from fire.

3. Data Storage

The physical storage location of data is Windsor, CT. The core physical infrastructure that includes physical hardware asset management, security, data protection, and networking services is managed by LLG staff. All systems are managed, monitored, and operated by LLG.

4. End-Point Protection

LLG Information Technology department develops, maintains, and revises as needed, a manual of procedures that govern the following:

Use of software to protect the computing environment from viruses and other malicious tools

Updating the computing environment with "patches" for known vulnerabilities

Restricting the ability of unprotected systems to access the environment

Installed and running on all LLG connected computers is an industry approved end-point protection software program that is updated regularly. Definitions are set to update daily.

5. Firewalls

LLG utilizes next-generation firewalls to inspect all traffic including applications, threats, and content. The next-generation firewalls provide LL Global the ability to:

Securely enable applications, users, and content by classifying all traffic.

Apply security policies to block known vulnerability exploits, viruses, ransomware, spyware, botnets, and other unknown malware, such as advanced persistent threats.

Protect our network by segmenting data and applications and enforcing the Zero Trust principle.

Provide centralized visibility and streamline network security, making data actionable to prevent successful cyberattacks.

URL filtering for outbound connections to prevent access to inappropriate websites.

Malware analysis and reporting via a cloud-based analysis service that provides detailed analysis and reporting on malware that passes through the firewall.

6. Network Zoning

LLG isolates critical network segments. Virtual machines are one network segment, databases are another, etc.

7. Access Controls

LLG has a comprehensive Access Control Policy that governs access control standards within processing systems and LLG networks, for user registration and privilege management, and for password use and management. This policy also contains requirements and safeguards associated with mobile technologies.

To access LLG computer network and business applications, all users must authenticate with a single unique user ID and a personal secret password managed through Active Directory. Each computer and communication system user ID uniquely identifies only one user. Shared or group user IDs are not created or used. User passwords have strength Requirements and must be changed every 90 days for LLG systems.

8. Least Privilege

LLG adheres to the principle of least privilege. The computer and communications system privileges of all users, systems, and programs are restricted based on the need to know. Special system privileges, such as the ability to examine the files of other users, are restricted to those directly responsible for system management and/or systems security. The number of privileged user IDs is strictly limited to people who absolutely need such privileges for authorized business purposes.

System administrators who manage computer systems with more than one user will have at least two user IDs, one that provides privileged access and is logged, and the other that provides the privileges of a normal user for day-to-day work.

9. Default System Configuration

LLG disables and does not use default or vendor accounts.

10. Recertification of Access

LLG recertifies users access accounts on a quarterly basis.

11. Connection to LLG Network

LLG network does not permit anyone to physically connect a personal computer or device to the network. All computers and devices that physically connect to the LLG network are owned, configured, and maintained by LLG. LLG does have a smartphone Bring Your Own Device policy, but devices covered under this policy, are configured only for e-mail access and do not connect to the LLG network.

About The Society of Actuaries

Serving as the research arm of the Society of Actuaries (SOA), the SOA Research Institute provides objective, data-driven research bringing together tried and true practices and future-focused approaches to address societal challenges and your business needs. The Institute provides trusted knowledge, extensive experience and new technologies to help effectively identify, predict and manage risks.

Representing the thousands of actuaries who help conduct critical research, the SOA Research Institute provides clarity and solutions on risks and societal challenges. The Institute connects actuaries, academics, employers, the insurance industry, regulators, research partners, foundations and research institutions, sponsors and non-governmental organizations, building an effective network which provides support, knowledge and expertise regarding the management of risk to benefit the industry and the public.

Managed by experienced actuaries and research experts from a broad range of industries, the SOA Research Institute creates, funds, develops and distributes research to elevate actuaries as leaders in measuring and managing risk. These efforts include studies, essay collections, webcasts, research papers, survey reports, and original research on topics impacting society.

Harnessing its peer-reviewed research, leading-edge technologies, new data tools and innovative practices, the Institute seeks to understand the underlying causes of risk and the possible outcomes. The Institute develops objective research spanning a variety of topics with its <u>strategic research programs</u>: aging and retirement; actuarial innovation and technology; mortality and longevity; diversity, equity and inclusion; health care cost trends; and catastrophe and climate risk. The Institute has a large volume of <u>topical research available</u>, including an expanding collection of international and market-specific research, experience studies, models and timely research.

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