John E. Morgan

A technical writer & editor who finds the typo wherever he goes

Writing Portfolio

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Proposals

Tell the client why they should choose our plan, and look good doing it.

Marriott Wardman Park Parking Management Proposal

This is just one small section of an example out of the 400+ proposals I authored, edited, and formatted in collaboration with subject matter experts (SMEs) and various key departments at SP+ Corporation.

The following pages show an excerpt from a typical proposal created in the standard proposal template for SP+. On proposals like this, I would review RFP requirements; assign tasks to SMEs; manage the project timeline and assembly; edit SME materials; insert contextually relevant boilerplate information; format documents; and finally print, assemble, and ship proposal materials to clients. This particular proposal features a new tab separator template, which I designed and created.

You can see more excerpts from other proposals at my website, linked here.

+ integrity + technology + innovation + initiative + knowledge + creativity

Proposal to Provide Parking Management Services

Washington Marriott Wardman Park
Washington, DC

HOSPITALITY SERVICES

Submitted to:

[redacted]

MARRIOTT

March 9, 2020

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1 About SP+

1. About SP+

SP Plus Corporation (NASDAQ: SP) provides professional services through its operating groups and service lines to property owners and managers in all markets of the real estate industry.

SP+ COMPANY STATISTICS	
Employees:	23,000
Total Facilities:	3,400+
Total Spaces Managed:	2 Million
Cities Operated in:	350
Annual Gross Receipts:	$4 Billion
Hotels Operated:	200+
Shuttles Operated:	825

SP+ operating groups include:

- **SP+ Airport Services**
- **SP+ GAMEDAY**
- **SP+ Healthcare Services**
- **SP+ Hospitality Services**
- **SP+ Municipal Services**
- **SP+ Office Services**
- **SP+ Residential Services**
- **SP+ Retail Services**
- **SP+ University Services**

SP+ service lines include:

- **SP+ Event Logistics**
- **SP+ Facility Maintenance**
- **SP+ Security Services**
- **SP+ Transportation**

Portfolio of Services

Our ability to deliver a portfolio of services as a single provider simplifies the administrative burden on our clients, enabling them to use the economic benefits of having a single relationship. Since our clients have only one reporting relationship to manage, we're able to more effectively and efficiently deliver a range of services than typically possible through multiple providers.

We're built on integrity and innovation, laser-focused on delivering the highest level of service to our customers and clients. We've set the industry standard in integrating new technologies, online interactive marketing programs, parking amenities and customer service programs, revenue control, financial reporting, expense containment, employee professionalism, and proactive management. Our operations maximize facility profitability while at the same time making parking a first-class, enjoyable experience. As a public company subject to the requirements of the Securities Exchange Act of 1934 and the Sarbanes-Oxley Act, we adhere to accounting, internal control and reporting standards that are more rigorous than those typically followed by our non-public competitors.

We invite you to visit www.spplus.com to learn more.

SP+ is an Accredited Parking Organization

The International Parking and Mobility Institute (IPMI) has recognized **SP+** as the first commercial parking operator to earn the Accredited Parking Organization (APO) with Distinction designation. This designation is reserved for the top 5% of parking organizations worldwide that demonstrate a comprehensive standard of excellence in our industry.

2019-22 ACCREDITED PARKING ORGANIZATION® WITH DISTINCTION

SP+ Hospitality Services & Its Offerings

Parking Management

SP+ Hospitality Services offers clients the latest parking technologies appropriate for the hotel environment. We'll help clients procure, install and test parking equipment, and will put in place customized guest arrival and departure procedures.

We offer business strategies to optimize pricing and maximize profits. We control costs by using financial systems tailored to the unique needs of the hospitality industry. Custom solutions include systems that post self-park fees to room charges, transaction automation equipment that lowers cashier labor costs and reduces cash handling, and a reporting platform that lets hotel executives securely download monthly financials and detailed back up reports at their convenience.

Our parking services cover:

- Facilities startup
- Self-park operations
- Cash-flow management
- Revenue controls
- Pricing optimization/profit maximization

Valet Parking

We raise "white glove" valet service to a whole new level. Guided by the highest standards of the service and hospitality industry, our employees project a professional image and deliver service levels commensurate with that of the hotels they serve. Coordinating with hotel staff, we anticipate and accommodate peak traffic times to ensure that each guest receives a courteous welcome, prompt car retrieval and smooth departure. Because we typically control a large number of parking spaces in nearby facilities, we're able to provide extra hotel parking during peak periods.

Our valet services include:

- Creation of attractive staging areas
- Doorman services
- Baggage handling
- Directions and maps

Technology Integration

Our clients benefit from the latest parking technologies available for the hotel environment. We help clients procure, install, test parking equipment and implement customized guest arrival and departure procedures.

We use automated call-down services that allow guests to call or send a message to the hotel parking garage when they are ready to retrieve their vehicles. Our web and mobile-supported valet management system allows clients to reduce vehicle wait times and improve the customer parking experience at their hotels.

Our parking technologies provide clients with:

- Revenue controls
- Reduced labor costs
- Reduced customer wait times
- Electronic reporting and customer database

Bags

SP+ completed the purchase of Bags in November, 2018. Bags combines exceptional customer service with innovative technologies to provide remote airline check-in, baggage handling and related services. Based in Orlando, Florida, Bags operates in over 250 cities in North America with approximately 3,000 employees. Its clients include major airlines, airports, sea ports, cruise lines, and leading hotels and resorts. Bags handles more than 5 million checked bags annually. Bags generated approximately $145 million in revenues in 2017.

Bags ®
An SP+ Company

Our Approach to Hotel Parking

Effective Communications with Hotel Management

A vital part of any hotel parking operation is constant, effective communication between the hotel and the parking staff. We have our on-site managers participate in those portions of the hotel's regular staff meetings that address upcoming hotel functions and expected occupancy. Doing so not only enhances our ability to plan our valet staffing schedule according to the hotel's projected activity levels, but also fosters a feeling that the valet parking staff is a part of the "hotel family," which in turn encourages optimal performance.

Hands-On Management

SP+ Hospitality Services focuses on providing direct, "hands-on" management participation throughout the senior levels of our management structure. Our ancillary management staff is close by and can devote significant time and energy to the parking operation—including regular on-site visits, inspections and reviews—to assure that our mutual goals and objectives for its performance are achieved.

Hotel Valet & Customer Service Training

We provide our hotel valet parking personnel with extensive operational and customer service training. We strongly encourage our hotel clients to allow valet personnel to participate in customer service training programs administered by the hotel for the hotel's own employees. Doing so assures that our valet staff understands the hotel's customer service expectations and facilitates teamwork among all hotel personnel.

Adherence to a Valet Code of Conduct

Valet service requirements are set out in our Valet Code of Conduct, which documents performance expectations for our hotel valet employees. We cover it all, from nametags and uniforms to key handling procedures and the proper placement of ticket stubs on the vehicles.

Employee Appearance & Professionalism

Because parking attendants are the first and last representatives with whom many of your guests and visitors will have contact with, we require our employees to adhere to a dress code adopted in conjunction with hotel management.

Reducing Vehicle Retrieval Times

An important aspect of any valet parking operation—and one that is critical to ensuring customer satisfaction—is prompt vehicle retrieval time. In addition to providing specific training to employees on efficient retrieval procedures, we'll review and evaluate the current traffic circulation pattern to ensure that the most efficient routes are used and procedures followed.

Minimizing Damage Claims

SP+ will review your operation and recommend procedures and policies to minimize damage claims. We have developed an effective system, through the use of our Incident Report Claim Forms, to research each claim and report the results to the claimant as quickly and objectively as possible. Our goal is to quickly and empathetically respond to all damage claims.

Valet Standards & Responsibilities

Our primary goal is to provide the guests and visitors of Washington Marriott Wardman Park with the highest level of service. For that reason, **SP+** has developed the following valet standards that would be tailored to meet your needs:

Arrival

- Curbside kept neat and clean
- Guest greeted within 10 seconds
- Staff polite and professional, smiles and makes eye contact with guest
- Umbrella service provided, if applicable
- Staff wore a legible nametag
- Staff well-groomed; uniform free of dirt and stains
- Staff displayed positive behavior (No eating, drinking, smoking, chewing gum, or other unprofessional behavior)
- Guest informed of any charges for valet parking in advance
- Guest given a claim check and given clear instructions for reclaiming car for use
- Valet personalize service to the guest by using the guest name in conversation

Departure

- Call for car retrieval answered within three rings
- Staff greeting was clear, audible; pleasant tone of voice
- Agent stated their name
- Permission asked before placing call on hold
- On hold less than 30 seconds
- Vehicle brought within five minutes of request or within time quoted
- Car door opened for departing guests
- Thanks provided to departing guests
- Staff extended thanks for a gratuity and a pleasant parting comment
- Car returned with radio and seats in same position
- Car returned with temperature controls set for guest comfort
- Valet parking accessible 24 hours per day
- Staff wore a legible nametag
- Staff well groomed; uniform free of dirt and stains
- Staff displayed positive behavior (No eating, drinking, smoking, chewing gum, or other unprofessional behavior)
- Money left in vehicle remained untouched
- Area not congested; traffic flowed in orderly manner

Delivering Five Diamond Service

At the core of **SP+** lies the key process to execute the highest levels of customer service. Before going "above and beyond" our associates must be experts in the basics. This program allows our engaged staff to understand the rating programs and standards utilized by the AAA and Forbes organizations. We focus on the important elements and the subtle nuances of delivering Five Diamond and Five Star service every day.

This highly interactive session will discuss each required standard in detail and will discuss proper execution at each location. Live "on the curb" practice of arrivals and departures will reinforce the information captured during the session. Repetition and practice "on the curb" will ensure execution is consistent by all staff at all times.

Topics

- AAA Five Diamond Standards
- Forbes Five Star Standards
- **SP+** brand standards
- Client specific brand standards

Objectives

By the end of the session, you will understand:

- How to differentiate between “good” and “great” customer service
- The skills required to execute the AAA Five Diamond and Forbes Five Star standards
- How your service impacts customer loyalty
- The psychology of luxury customer service

Audience

- Valet Attendants
- Cashiers
- Doorpersons
- Lot Attendants

Duration

- Keynote presentation (up to two hours)
- Half day presentation with curbside follow-up (four hours)
- Full day presentation with in depth curbside
- Training (up to seven hours)

Quality Assurance Program

Our **SP+** operating divisions are keenly focused on providing the best service to our customers and clients. As a result we implement several methods to ensure that the level of service we provide in our facilities exceeds all expectations. We have a broad spectrum of programs designed to ensure timeliness and quality of the products we deliver to our clients and customers.

We have decades of experience working as office buildings’ parking department manager. This experience enables us to understand the nuances of issues that occur at an office building parking operation. Many parking operators can train their staff to maximize revenues and minimize expenses, but the true test of a value-added support partner for the client is the parking operator’s willingness, enthusiasm, and ability to do so in a manner that also can make the level of customer service it provides to all parking constituencies occur not only when things are functioning smoothly as planned, but when disruptions occur for whatever reasons, and which therefore, require a sensitive and prompt willingness to try and resolve the difficulty for each and every patron.

The overall “quality of service” that we provide at our facilities falls into two basic categories—both of which are of equal importance in making a direct, meaningful impression on our parking patrons: (1) the physical cleanliness and appearance of the parking facility and environment and (2) the quality of the interactive service provided by our facility personnel. We have outlined some of these programs on the following page.

Mystery Shopper Program

In order to ensure that our parking operations maintain the highest levels of customer service, we utilize a Mystery Shopper Program. The evaluations are performed by a professional mystery shopping service. At a minimum, one shop is performed per location per month, varying shifts from month to month. The shops can be customized to target key items and areas of focus such as employee and facility appearance, accuracy of fee charged and customer service. The mystery shopper looks at the location through the eyes of a customer and provides a detailed report of their visit to the location. The mystery shop findings are communicated to the members of the operational management team for review and follow up. The reports are documented and kept on file at the location.

Safety Training Program

Our safety training program is designed to help managers and employees establish and maintain a safe environment in the parking facility. In addition to providing the training, Facility Managers are required to perform daily inspections of the facility, monthly hazard evaluations and an annual Safety Program Assessment.

The components of the safety training include:

- Safe work practices
- Emergency procedures
- Vehicle safety
- Use of man lifts
- Use of tools & equipment
- Proper work shoes and other personal protective equipment
- Code of safe practices
- Training on any toxic materials
- When and where to report unsafe conditions
- How, when and where to report accidents and injuries
- Policy on medical treatment for work related injuries
- Progressive disciplinary policy for safety violations

Injury & Illness Prevention Program (IIPP)

For years safety experts have tried to implement programs to prevent employee injuries and government has passed many regulations to help OSHA enforce workplace safety. But all of the laws, programs and rules in the world can't keep an individual from injury—if he or she doesn't think.

Statistics have shown that for every on-the-job accident caused by unsafe conditions, there are at least four (4) that can be attributed to unsafe acts.

What an employee does or fails to do can directly affect personal safety. Thinking is a personal action that no one else can do for the individual. Failure to fully think the task through is often seen as the hidden safety hazard or unsafe act that contributes to workplace accidents.

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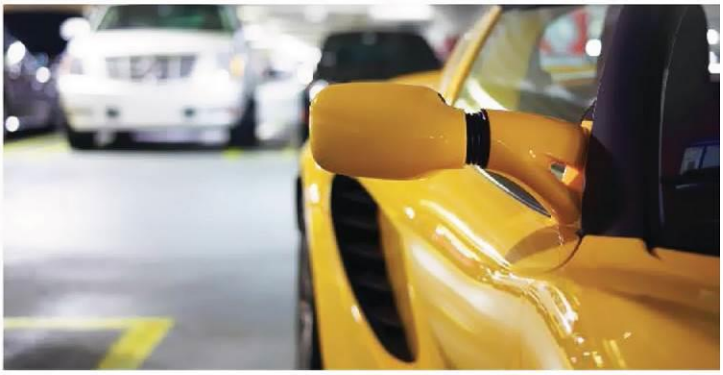


HOSPITALITY SERVICES

Matthew Witt
Regional Hospitality Manager
[redacted]

INNOVATION IN OPERATION®

Presentations

Draw the audience in with snazzy visuals. Keep them engaged with good content.

QuadReal National Canadian Portfolio

Creating the WOW Factor in Your Presentation

Penn State University Event Management

Kaiser Permanente Portfolio

I worked with SMEs and presenters—sometimes taking on those roles myself—to create engaging, visually interesting, and informative presentations. I'm especially proud of these presentations because I created so many visual elements and put them together so they would be consistent with our branding while still bringing an element of customization to the client.

Most of the presentations I created during my time at SP+ were done with Prezi, a cloud-based presentation software that we learned from the ground up in only a few weeks' time.

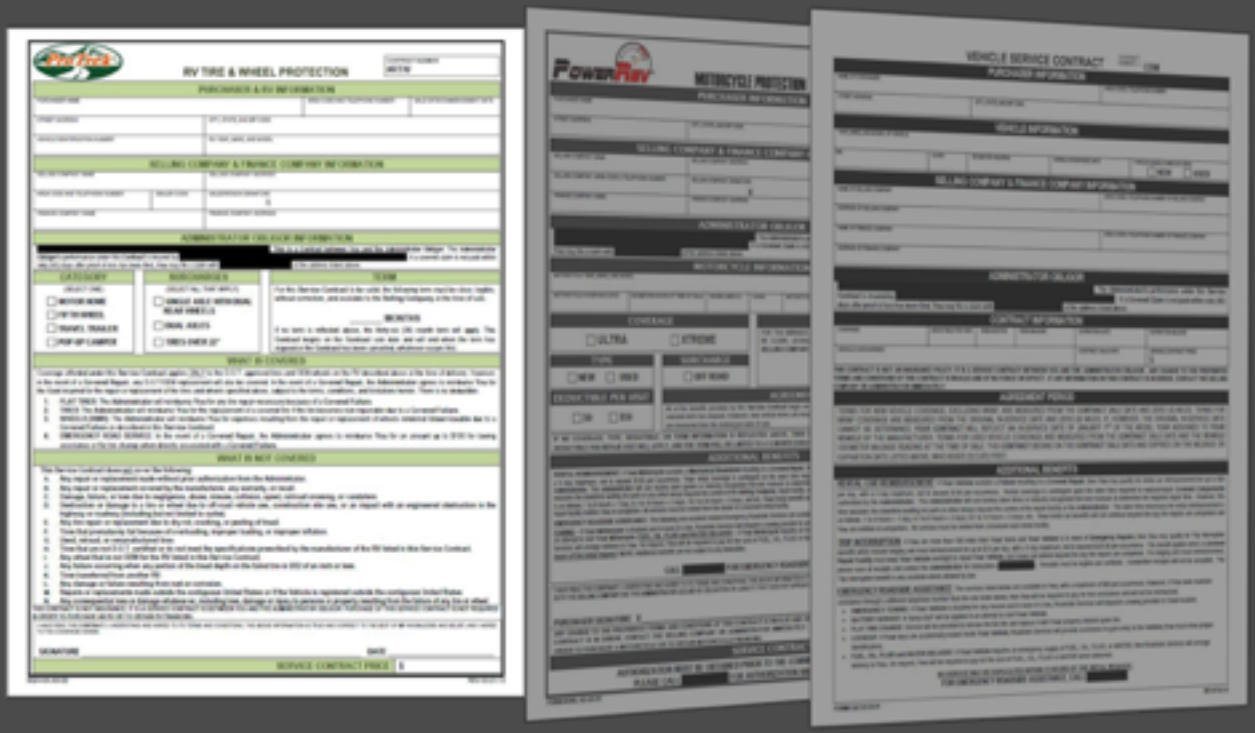
It is difficult to convey the movement and impressive visuals that Prezi can offer in PDF format, so I suggest visiting the links above in your browser instead.

Contracts

Be concise, informative, and honest, but don't let people jump through loopholes.

Standard Vehicle Service Contract

Pro-Trek RV Tire & Wheel Protection



In my time with SouthwestRe, Inc., I created hundreds of draft vehicle service contracts and warranties of all different sorts. All of them had to go through legal processes, programming, and printing to make it to the end-user. Contracts like these need to be not only airtight to keep the company from exposure to risk, but also easy to read and digest for the contract purchaser.

On the following pages are examples of contracts I wrote, formatted, and edited. These contracts were legally sound, functioned within required contract management systems, and met client expectations. I have a special pride in these particular contracts because I created them from the ground up as new products.

You can see more contracts at my website, linked here.

VEHICLE SERVICE CONTRACT

CONTRACT NUMBER → **CDM**

PURCHASER INFORMATION

NAME OF PURCHASER	AREA CODE & TELEPHONE NUMBER

STREET ADDRESS	CITY, STATE, AND ZIP CODE

VEHICLE INFORMATION

YEAR, MAKE, AND MODEL OF VEHICLE

VIN	CLASS	ODOMETER READING	VEHICLE IN-SERVICE DATE	TYPE OF VEHICLE (NEW OR USED)
				☐ **NEW** ☐ **USED**

SELLING COMPANY & FINANCE COMPANY INFORMATION

NAME OF SELLING COMPANY	AREA CODE & TELEPHONE NUMBER OF SELLING COMPANY

ADDRESS OF SELLING COMPANY

NAME OF FINANCE COMPANY	AREA CODE & TELEPHONE NUMBER OF FINANCE COMPANY

ADDRESS OF FINANCE COMPANY

ADMINISTRATOR OBLIGOR

[redacted]. The **Administrator's** performance under this **Service Contract** is insured by [redacted]. If a **Covered Claim** is not paid within sixty (60) days after proof of loss has been filed, **You** may file a claim with [redacted] at the address listed above.

CONTRACT INFORMATION

COVERAGE	DEDUCTIBLE PER VISIT	TERM MONTHS	TERM MILEAGE	EXPIRATION DATE	EXPIRATION MILEAGE

VEHICLE SURCHARGES	CONTRACT SALE DATE	SERVICE CONTRACT PRICE
		$

THIS CONTRACT IS NOT AN INSURANCE POLICY; IT IS A SERVICE CONTRACT BETWEEN YOU AND THE ADMINISTRATOR OBLIGOR. ANY CHANGE TO THE PREPRINTED TERMS AND CONDITIONS OF THIS CONTRACT IS INVALID AND OF NO FORCE OR EFFECT. IF ANY INFORMATION ON THIS CONTRACT IS IN ERROR, CONTACT THE SELLING COMPANY OR ADMINISTRATOR IMMEDIATELY.

AGREEMENT PERIOD

TERMS FOR NEW VEHICLE COVERAGE, EXCLUDING WRAP, ARE MEASURED FROM THE **CONTRACT** SALE DATE AND ZERO (0) MILES. TERMS FOR WRAP COVERAGE ARE MEASURED FROM THE ORIGINAL IN-SERVICE DATE AND ZERO (0) MILES. IF, HOWEVER, THE ORIGINAL IN-SERVICE DATE CANNOT BE DETERMINED, **YOUR CONTRACT** WILL REFLECT AN IN-SERVICE DATE OF JANUARY 1ST OF THE MODEL YEAR ASSIGNED TO **YOUR VEHICLE** BY THE MANUFACTURER. TERMS FOR USED VEHICLE COVERAGE ARE MEASURED FROM THE **CONTRACT** SALE DATE AND THE **VEHICLE** ODOMETER MILEAGE READING AT THE TIME OF SALE. THIS **CONTRACT** BEGINS ON THE **CONTRACT** SALE DATE AND EXPIRES ON THE MILEAGE OR EXPIRATION DATE LISTED ABOVE, WHICHEVER OCCURS FIRST.

ADDITIONAL BENEFITS

RENTAL CAR REIMBURSEMENT: If **Your Vehicle** sustains a **Failure** resulting in a **Covered Repair**, then **You** may qualify for rental car reimbursement for up to $30 per day, with a 5 day maximum, not to exceed $150 per occurrence. Rental coverage is contingent upon the labor time required to replace/repair **Covered Components** authorized by the **Administrator**. The **Administrator** will use factory labor times or industry recognized flat-rate manuals to determine the required repair time. However, this time excludes the downtime waiting for parts or other delays beyond the control of the repair facility or the **Administrator**. The labor time necessary for rental reimbursement is as follows: 1 to 4 hours = 1 day; 4.1 to 8 hours = 2 days; 8.1 to 12 hours = 3 days; etc. **Your** rental car benefits will not continue beyond the day the repairs are completed and **You** are notified of completion. All vehicles must be rented from a licensed auto rental facility.

TRIP INTERRUPTION: If **You** are more than 100 miles from **Your** home and **Your Vehicle** is in need of **Emergency Repairs**, then **You** may qualify for Trip Interruption benefits which include lodging and meal reimbursement for up to $75 per day, with a 3 day maximum, not to exceed $225.00 per occurrence. This benefit applies when a **Licensed Repair Facility** must keep **Your Vehicle** overnight to repair **Your Vehicle**, but it does not extend beyond the day the repairs are completed. For lodging and meal reimbursement, please save all receipts and contact the **Administrator** for instructions ([redacted]). Receipts must be legible and verifiable. Handwritten receipts will not be accepted. The Trip Interruption benefit is only available where allowed by law.

EMERGENCY ROADSIDE ASSISTANCE: The services listed below are available to **You**, with a maximum of $80 per occurrence. However, if **You** seek roadside assistance through a different telephone number than the one listed below, then **You** will be required to pay for that assistance and will not be reimbursed.

- **EMERGENCY TOWING**: If **Your Vehicle** is disabled for any reason and in need of a tow, Roadside Services will dispatch a towing provider to **Your** location.
- **BATTERY SERVICE**: A "jump start" will be applied in an attempt to start **Your Vehicle**.
- **FLAT TIRE CHANGE**: Service will be provided to remove the flat tire and replace it with **Your** properly inflated spare tire.
- **LOCKOUT**: If **Your** keys are accidentally locked inside **Your Vehicle**, Roadside Services will provide assistance to gain entry to the **Vehicle** (**You** must show proper identification).
- **FUEL, OIL, FLUID and WATER DELIVERY**: If **Your Vehicle** requires an emergency supply of FUEL, OIL, FLUID, or WATER, then Roadside Services will arrange delivery to **You**. On request, **You** will be required to pay for the cost of FUEL, OIL, FLUID or WATER when delivered.

NO SERVICE MAY BE DUPLICATED WITHIN 72 HOURS OF THE INITIAL REQUEST.

FOR EMERGENCY ROADSIDE ASSISTANCE, CALL [redacted].

A. MAINTENANCE AND RECORDS

To obtain the benefits provided by this **Service Contract**, **Covered Components** must be maintained at a **Licensed Repair Facility** and in accordance with what is recommended by the manufacturer of **Your Vehicle**. Proper documentation and verifiable receipts for all maintenance and repairs will be required in the event of a claim. Receipts must reflect **Your** name, proper **Vehicle** documentation (e.g. year, make, and model), complete **Vehicle** identification number, and the current mileage of the **Vehicle**. Handwritten receipts will not be accepted. Failure to provide proof of required maintenance may result in denial of coverage. **Your** failure to provide the **Covered Components** of **Your Vehicle** with the maintenance recommended by the manufacturer may result in denial of coverage.

B. WHAT IS COVERED

Covered Components are categorized into five sections (POWERTRAIN, STANDARD, HIGH TECH, COMPREHENSIVE, and WRAP) and sub-categorized by related vehicle components. Only those items listed within these sections are covered, subject to the terms and conditions of this **Service Contract** and in accordance with the coverage and surcharges selected on the declarations page. If a **Failure** occurs to a **Covered Component** during the term of this **Service Contract**, the **Administrator** will pay for the repair or replacement of the **Covered Component**, subject to the terms and conditions herein.

POWERTRAIN COVERAGE

POWERTRAIN COVERAGE includes the following items only:

ENGINE COMPONENTS: Oil Pump, Distributor Shaft and Housing, Harmonic Balancer, Valve Covers, Timing Cover, Water Pump, Fuel Pump, Intake Manifold, and all internal, **Lubricated Parts** of the Engine. The Engine Block and Heads are covered only if damaged by the **Failure** of an internal, **Lubricated Part**.

† **TURBO/SUPERCHARGER** (OEM ONLY): All internal, **Lubricated Parts** of the Turbocharger/Supercharger. The Housing is covered only if damaged by the **Failure** of an internal, **Lubricated Part**.

TRANSMISSION COMPONENTS (Automatic & Manual): Torque Converter, Vacuum Modulator, and all internal, **Lubricated Parts** of the Transmission. Covers, Pans, and Cases are covered only if damaged by the **Failure** of an internal, **Lubricated Part**.

★ **TRANSFER CASE COMPONENTS**: All internal, **Lubricated Parts** of the Transfer Case or All Wheel Drive Mechanism. The Transfer Case Housing or Housing for the All Wheel Drive Mechanism is covered only if damaged by the **Failure** of an internal, **Lubricated Part**.

★ **FRONT AND REAR DIFFERENTIAL COMPONENTS**: Axle Shafts, Constant Velocity Joints, and all internal, **Lubricated Parts** of the Differential. The Differential Case is covered only if damaged by the **Failure** of an internal, **Lubricated Part**.

SEALS & GASKETS: Seals & Gaskets coverage applies to all items listed above. However, if any item listed above requires a surcharge, then the required surcharge must be selected and paid for Seals & Gaskets coverage to apply to that item.

† **SURCHARGE REQUIRED FOR COVERAGE ON TURBOCHARGER / SUPERCHARGER COMPONENTS.**
★ **THE 4WD / AWD SURCHARGE IS REQUIRED FOR COVERAGE ON THE TRANSFER CASE (OR ALL WHEEL DRIVE MECHANISM) AND 2nd DIFFERENTIAL COMPONENTS.**

STANDARD COVERAGE

STANDARD COVERAGE includes all of the components and stipulations listed in POWERTRAIN COVERAGE, plus the following items only:

STEERING COMPONENTS: Manual and Power Steering Gear Assembly, Control Valve and Rack Assembly, Power Steering Pump, Steering Column Main and Intermediate Shafts, Cooler, Pitman Arm, Idler Arm, Tie Rod Ends, Couplings, and Drag Link.

FRONT SUSPENSION COMPONENTS: Upper and Lower Control Arms, Control Arm Shafts and Bushings, Upper and Lower Ball Joints, Stabilizer Shaft Linkage and Bushings, Spindles, and Spindle Supports.

BRAKE COMPONENTS: Master Cylinder, Power Assist Booster and Valve, Wheel Cylinders, Calipers, Combination Valve, Steel Lines and Fittings, Self Adjusters, and Parking Brake Linkage and Cables. NOTE: this level of coverage does not include the ABS system.

ELECTRICAL COMPONENTS: Alternator, Voltage Regulator, Starter Motor, Starter Drive, Starter Solenoid, Front Wiper Motor (including internal Circuit Board), Relay and Delay Switches, Manually Operated Switches, and Wiring Harnesses.

FACTORY AIR CONDITIONING AND HEATING COMPONENTS: Compressor, Clutch, Clutch Coil and Pulley, Orifice Tube, Condenser, and Evaporator.

SEALS & GASKETS: Seals & Gaskets coverage only applies to **Covered Components**.

HIGH TECH COVERAGE

HIGH-TECH COVERAGE includes all of the components and stipulations listed in POWERTRAIN & STANDARD COVERAGE, plus the following items only:

FRONT AND REAR SUSPENSION COMPONENTS: McPherson Style Struts, Shackle Bushings and Eye Bushings, Leaf and Coil Springs, Leaf and Coil Spring Bushings, Torsion Bars, Wheel Bearings, Automatic Leveling Unit Compressor, Level Sensor, and Limiter Valve.

ELECTRICAL COMPONENTS: Rear Wiper Motor, Heater Blower Motor, Factory Installed Sunroof Motor, Convertible Top Motor, Power Antenna (motor only), Remote Keyless Entry Module, Cruise Control Servo, Cruise Control Module and Transducer, Compass, Thermometer, Electronic Control Module, Oxygen Sensor, Ignition Module, Igniter, Electronic Instrument Cluster and Circuit Board, Power Window Motors/Regulators, Power Door Locks, Power Seat Motors, and Speedometer Head.

ANTI-LOCK BRAKE (ABS) COMPONENTS: Electronic Control Unit, Anti-Lock Computer Module, Wheel Speed Sensors/Exciters, Proportioning Valves, High Pressure Hydraulic Pump, Electro-Hydraulic Proportioning Control Valves, and Accumulator.

FACTORY AIR CONDITIONING AND HEATING COMPONENTS: Expansion Valve, POA Valve, Drier, Accumulator, Hi-Low Pressure Cut-Off Switch, Ducts and Outlet Hoses, and Automatic Temperature Control Programmer.

COOLING COMPONENTS: Radiator, Fan Clutch, Fan Blade, Cooling Fan Motors, and Heater Core.

FUEL DELIVERY COMPONENTS: Fuel Injector Metering Pump, Fuel Injectors, Fuel Distributor, Diesel Injection Pump, Metal Fuel Lines, Fuel Sending Unit.

INTERIOR/EXTERIOR COMPONENTS: Glove Box Door and Hinge, Seat Tracks, Interior and Exterior Door Handles, Door Hinges, Map/Courtesy Light Assembly, and Hood/Trunk Gas Struts.

SEALS & GASKETS: Seals & Gaskets coverage only applies to **Covered Components**.

COMPREHENSIVE COVERAGE

If **You** selected Comprehensive Coverage and selected and paid all applicable surcharges for **Your Vehicle**, this **Service Contract** will cover necessary repairs to ALL of the mechanical and electrical parts of **Your Vehicle**, except those items listed under "WHAT IS NOT COVERED."

WRAP COVERAGE

If **You** selected Wrap Coverage and selected and paid all applicable surcharges for **Your Vehicle**, this **Service Contract** will cover necessary repairs to ALL of the mechanical and electrical parts of **Your Vehicle**, except those items listed under "WHAT IS NOT COVERED." Additionally, Wrap Coverage specifically excludes all components listed for coverage under the manufacturer's powertrain warranty.

AUTHORIZATION MUST BE OBTAINED FROM THE ADMINISTRATOR PRIOR TO THE COMMENCEMENT OF ANY TEAR DOWN OR REPAIRS. FOR AUTHORIZATION AND INSTRUCTIONS, PLEASE CALL [redacted].

C. LIMITS OF LIABILITY

The total of all benefits paid or payable shall not exceed the NADA "clean trade-in" value immediately prior to **Breakdown**. **Our** liability for incidental and consequential damages including, but not limited to personal injury, physical damage, property damage, loss of **Vehicle** use, loss of time, inconvenience and commercial loss resulting from the operation, repair, maintenance or use of this **Vehicle** is expressly excluded.

D. WHAT IS NOT COVERED

In accordance with the coverage You selected on the front page of this Service Contract, any part not specifically listed under the "WHAT IS COVERED" section is not covered. In addition, this Service Contract does not apply to:

1. **Any repair which has not received prior authorization from the Administrator. This exclusion does not apply to emergency repairs performed outside of the Administrator's business hours.**
2. **The repair or replacement of any motor vehicle component which was not properly operating in accordance with manufacturer's specification at the time this Service Contract was sold (i.e. pre-existing conditions).**
3. **Any Vehicle with a branded title (e.g. salvage, junk, rebuilt, total loss, flood, fire, or gray market).**
4. **Any Vehicle which has been repurchased by or had its price renegotiated with the manufacturer, or that has had the manufacturer's warranty revoked or voided.**
5. **The repair or replacement of any Covered Component which has not Failed, as defined in this Service Contract.**
6. **The repair, retrofit, or replacement of any component required for compliance by any local, state, or federal law or legislation.**
7. **The gradual reduction in component performance through normal or excessive usage. The repair or replacement of engine valves, valve guides, valve seals, and/or piston rings, if the purpose of such repair(s) is simply to raise the compression of the engine, increase performance, or to reach acceptable oil consumption, is not covered.**
8. **Damage due to the alteration, modification, or use of Your Vehicle in a manner not recommended by the manufacturer, including the use of "non-stock" or modified parts.**
9. **Any Mechanical Breakdown covered by an insurance entity, the manufacturer's warranty or recall, or that has a warranty or "repairer's guarantee" through a repair facility. Additionally, if an insurance entity, the manufacturer, or repair facility notifies You that they will monetarily participate in a repair which has been authorized and paid by Us, then We will exercise Our right to recover the respective amount.**
10. **Any Vehicle with an odometer which has been tampered with, altered, disconnected, or not maintained. You may be required to provide an odometer statement. Misrepresentation of the odometer reading either before or during the term of this Contract may render this Contract void.**
11. **Any Mechanical Breakdown or Failure caused by (a) normal wear and tear, (b) Your failure to provide proper maintenance to the failed part or parts, (c) overheating, regardless of the cause of overheating, (d) incorrect, contaminated, or inadequate amounts of coolant, lubricants, or fluids, (e) accidental loss or damage, impact, collision or upset, falling missiles or objects, rust, corrosion, fire, theft, larceny, explosion, lightning, earthquake, wind storm, hail, water, flood, freezing, malicious mischief, vandalism, riot, or civil commotion, or (f) DRIVER NEGLIGENCE OR MISUSE, INCLUDING THE OPERATION OF AN IMPAIRED VEHICLE.**
12. **Cosmetic damage or cosmetic related repairs (e.g. scratches, nicks, dents, or tears).**
13. **Body components or repairs related to the body of the Vehicle (e.g. bumpers, lenses, glass, paint, convertible or vinyl tops, sheet metal, outside ornamentation, frame or structural body parts, air or water leaks, wind noise, weather strips, squeaks or rattles, trim, upholstery, carpet, or mats).**
14. **Electronic components which were not originally installed by the manufacturer (i.e. non-OEM components) including the following: audio/video equipment and accessories, navigational systems, security systems, and electronic transmitting/receiving devices.**
15. **The following, unless required in conjunction with a Covered Repair: upgrades, adjustments, alignments, oil, fluids, greases, lubricants or refrigerant.**
16. **Maintenance services and parts described in the manufacturer's maintenance schedule for Your Vehicle. NOTE: During the term of this Service Contract, it may become necessary to (a) replace spark/glow plugs and wires, emission control valves, timing belts, and filters, (b) adjust belts, ignition, transmission bands, or clutch system, (c) clean fuel and cooling systems, or remove sludge or carbon deposits, and (d) maintain or replace items not specifically covered under this Service Contract. These aforementioned services and replacements are required because of normal wear and usage—they are Your responsibility. Costs for these services and parts are not covered by this Service Contract.**
17. **Any expenses associated with shop supplies, materials charges (i.e. miscellaneous items not directly associated with a covered repair), hazardous waste charges, diagnosis time (where a Covered Mechanical Breakdown has not occurred), freight charges, or storage charges.**
18. **Any Vehicle used for Commercial purposes (unless a commercial surcharge is offered and paid on the contract sale date) or fitted with snowplow equipment.**
19. **The repair or replacement of the following: (a) batteries and battery cables, (b) exhaust system components and catalytic converters, (c) tires, wheels/rims, and shock absorbers (d) fasteners, nuts, bolts, clips, screws, (e) fuses and bulbs, (f) safety restraint systems (including air bags), (g) brake linings, rotors, and drums, (h) sealed beams and HID headlamp systems, (i) drive belts, wiper blades, hoses, molded rubber, and rubber-like items, (j) clutch disc and linings, clutch pressure plate, clutch throw-out bearings, pilot bearings, (k) bent shift forks, stretched timing chains, and (l) cellular phones.**
20. **Any losses resulting from delays, labor strikes, loss of time, inconvenience, or other causes beyond the control of the Administrator.**
21. **The repair or replacement of any Covered Component damaged by a non-Covered Component or from an improper repair.**
22. **The repair or replacement of any non-Covered Component damaged as a result of the Failure of a Covered Component.**
23. **Repairs or replacements made outside the United States or Canada or if the Vehicle is registered outside the United States or Canada.**

E. WHAT TO DO IF YOUR VEHICLE SUSTAINS A MECHANICAL BREAKDOWN

1. Take immediate action to protect the **Vehicle** from further damage. This may require **You** to stop the **Vehicle**, turn off the engine, and have the **Vehicle** towed.
2. **You** may take the **Vehicle** to any **Licensed Repair Facility**. However, authorization must be obtained from the **Administrator** prior to any repair.
3. Present this **Contract** and proof of all maintenance as expressed under "MAINTENANCE AND RECORDS" to the repair facility.
4. Make certain the repair facility contacts the **Administrator** for instructions prior to any repairs. The **Administrator** can be contacted at [redacted], Monday through Friday from 7:00 a.m. to 7:00 p.m. (CST) and on Saturday from 8:00 a.m. to 2:00 p.m. (CST).
5. In some instances, a **Covered Component** may require disassembly to determine if the repair in question is a **Covered Mechanical Breakdown**. In these instances, **You** may be asked to approve the disassembly.
6. If **Emergency Repairs** covered by this **Service Contract** are required outside of the **Administrator's** business hours, deliver **Your Vehicle** to a **Licensed Repair Facility** and have the necessary repairs performed at a reasonable and customary charge. On the next business day, report the repairs to the **Administrator**. To report an **Emergency Repair** and to obtain reimbursement, please call the claims number for instructions: [redacted]. Reimbursement for such repairs will not be considered outside of the aforementioned parameter or timeframe.
7. In all instances, if **Your** repair is a **Covered Repair**, then **You** are required to pay the deductible amount reflected on the declarations page of this **Contract**. In addition, **You** are also required to pay for any charges not authorized by the **Administrator**.
8. In the event the **Administrator** determines the repair in question is not a **Covered Repair**, then **You** are responsible for any cost incurred.

AUTHORIZATION MUST BE OBTAINED FROM THE ADMINISTRATOR PRIOR TO THE COMMENCEMENT OF ANY TEAR DOWN OR REPAIRS. FOR AUTHORIZATION AND INSTRUCTIONS, PLEASE CALL [redacted].

F. WHAT THE ADMINISTRATOR OBLIGOR WILL DO WHEN A CLAIM IS REPORTED

The **Administrator** will determine coverage subject to the terms and conditions of this **Contract**. Towards this end, the **Administrator** will verify the **Failure** with the repair facility, verify coverage, determine the **Cost** of the repair, and authorize the claim for any **Covered Repairs** (the claim is not approved unless authorization numbers are given to the repair facility).

NOTE: (1) At the sole discretion of the **Administrator**, **Covered Components may be replaced with new parts, remanufactured parts, or with used parts of like kind and quality.** (2) **We** reserve the right to inspect **Your Vehicle** to verify a **Failure**(s). In addition, if a dispute arises between the repair facility and **Us**, **We** reserve the right to relocate **Your Vehicle** to a repair facility of **Our** choice.

G. STATE TAXES

The payment of sales tax on **Covered Repairs** will be made in accordance with the regulations of the Taxing Authority in the state where **Your** approved **Vehicle** has been repaired

H. DEFINITIONS

- **ADMINISTRATOR OBLIGOR**, **ADMINISTRATOR**, **WE**, **US**, and **OUR**: [redacted].
- **BREAKDOWN**, **MECHANICAL BREAKDOWN**, **FAILURE**, or **FAILED**: The inability of any **Covered Component(s)** that has received proper maintenance, as prescribed by this **Service Contract**, to function in the manner for which it was designed. This inability must be the result of defective materials or faulty workmanship, but not due to the gradual reduction in component performance through normal or excessive usage. In addition, all **Failed** parts must be outside the allowable tolerances prescribed by the manufacturer to be deemed a **Failure**.
- **COST**: The customary and reasonable charges for parts and labor necessary to repair or replace **Covered Components**. These charges are subject to the **Administrator's** approval and shall not exceed either the manufacturer's suggested retail (list) price for parts or the labor allowances derived from industry recognized flat-rate manuals. The maximum dollar amount per labor hour shall not exceed $80.00, unless approved in advance by the **Administrator**.
- **COVERED MECHANICAL BREAKDOWN**: A **Failure** that is covered by this **Contract**.
- **COVERED PART(S)** and **COVERED COMPONENT(S)**: Any part of the **Vehicle** listed herein as a **Covered Part/Component** and not excluded from coverage by this **Service Contract**.
- **COVERED REPAIR**: A repair to a **Covered Part/Component** approved by the **Administrator**.
- **EMERGENCY REPAIRS**: Necessary repairs, which, if not performed, would impair the future operation of **Your Vehicle**, or render it inoperable or unsafe to drive.
- **FINANCE COMPANY**: The financial institution listed on the first page of this **Contract** who is financing this **Service Contract**.
- **LICENSED REPAIR FACILITY**: Any automotive repair facility licensed to perform automotive repairs by the state in which it operates.
- **LUBRICATED PART**: A part which requires lubrication to correctly function.
- **SELLING COMPANY**: The entity identified on the first page of this **Contract** from which **You** purchased this **Service Contract**.
- **SERVICE CONTRACT** or **CONTRACT**: This document in its entirety, which explains the coverage and limitations afforded to **You**.
- **VEHICLE**: The **Vehicle** identified on the first page of this **Contract**.
- **YOU**, **YOUR**, **MY**, and **I**: The person(s) whose name is listed as the purchaser of this **Service Contract**.

I. CANCELLATION/RENEWAL

CANCELLATION BY THE ADMINISTRATOR: The **Administrator** may cancel this **Contract** for non-payment of the **Service Contract** price or for material misrepresentation or substantial breaches of contractual duties, conditions, or warranties.

CANCELLATION BY THE FINANCE COMPANY: **You** hereby authorize the **Finance Company** to the following: (1) to be listed as a joint payee and receive any refund in the event this **Contract** is cancelled, and (2) to cancel this **Contract** in the event **You** default in **Your** obligations to the **Finance Company**.

CANCELLATION BY THE CONTRACT HOLDER: If **Your Vehicle** has been repossessed or declared a total loss, this **Service Contract** will terminate. However, **You** may cancel this **Service Contract** at any time by notifying the **Administrator** in writing. This notification must include this **Service Contract** and a notarized statement indicating the actual mileage (odometer reading) of **Your Vehicle** on the date of the request. If the **Administrator** receives **Your** request within the first thirty (30) days from the contract sale date and no claims have been filed, then **You** will receive a full refund. If the **Administrator** receives **Your** request after the first thirty (30) days from the contract sale date or after a claim has been filed, then **You** will receive a pro rata refund, and any claims paid under this **Contract** will be deducted from the refund amount.

CANCELLATION PROVISIONS: Pro rata refunds are determined by multiplying the amount **You** paid for this **Service Contract** by the lesser of the following two ratios: Either by (a) the number of covered days remaining on the **Service Contract** compared to the original number of covered days, or by (b) the miles of remaining coverage under the **Service Contract** compared to the original covered miles. A cancellation fee of $50 or 10% of the **Contract** price, whichever is less, will apply to all pro rata cancellations. If there is no **Finance Company**, the refundable amount will be paid to **You**. If there is a **Finance Company**, the refundable amount will be paid to the **Finance Company**.

NOTE: Transferred **Service Contracts** are not eligible for cancellation refunds.

CONTRACT RENEWAL: This **Contract** is non-renewable.

J. TRANSFER OF VEHICLE OWNERSHIP

If **You** sell **Your Vehicle** or if there is any change in the ownership of **Your Vehicle**, this **Contract** will terminate. However, **You** may request to transfer the remaining coverage of this **Contract** to the new owner within fifteen (15) days of the change in **Vehicle** ownership. **You** must notify the **Administrator** in writing and include the following: a transfer fee of $50, name and address of the new owner, a copy of the bill of sale or sales contract showing the date and mileage of **Your Vehicle** at the time of sale (when applicable), and proof that **You** transferred the remaining manufacturer's warranty (when available) to the new owner of **Your Vehicle**. The **Administrator** has the discretion to approve or reject **Your** request. Copies of all maintenance records and receipts must be given to the new owner. No hand written receipts will be accepted. The new owner must retain these records and is subject to the maintenance requirements specified in this **Contract**. This **Contract** may not be transferred more than once, may not be assigned to another vehicle, and may not be transferred to a new or used vehicle dealer or anyone other than an individual purchasing **Your Vehicle** for personal use.

NOTE: Wrap policies are non-transferable unless the factory powertrain coverage is transferred in conjunction with this **Service Contract**.

AUTHORIZATION MUST BE OBTAINED FROM THE ADMINISTRATOR PRIOR TO THE COMMENCEMENT OF ANY TEAR DOWN OR REPAIRS. FOR AUTHORIZATION AND INSTRUCTIONS, PLEASE CALL [redacted].

RV TIRE & WHEEL PROTECTION

CONTRACT NUMBER
#RTW

PURCHASER & RV INFORMATION

PURCHASER NAME	AREA CODE AND TELEPHONE NUMBER	SALE DATE/COMMENCEMENT DATE

STREET ADDRESS	CITY, STATE, AND ZIP CODE

VEHICLE IDENTIFICATION NUMBER	RV YEAR, MAKE, AND MODEL

SELLING COMPANY & FINANCE COMPANY INFORMATION

SELLING COMPANY NAME	SELLING COMPANY ADDRESS

AREA CODE AND TELEPHONE NUMBER	DEALER CODE	SALESPERSON SIGNATURE
		X

FINANCE COMPANY NAME	FINANCE COMPANY ADDRESS

ADMINISTRATOR OBLIGOR INFORMATION

[redacted]. **This is a Contract between You and the Administrator Obligor.** The **Administrator Obligor's** performance under this **Contract** is insured by [redacted]. If a covered claim is not paid within sixty (60) days after proof of loss has been filed, **You** may file a claim with [redacted] at the address listed above.

CATEGORY

(SELECT ONE)

- ☐ MOTOR HOME
- ☐ FIFTH WHEEL
- ☐ TRAVEL TRAILER
- ☐ POP-UP CAMPER

SURCHARGES

(SELECT ALL THAT APPLY)

- ☐ SINGLE AXLE WITH DUAL REAR WHEELS
- ☐ DUAL AXLES
- ☐ TIRES OVER 22"

TERM

For this **Service Contract** to be valid, the following term must be clear, legible, without correction, and available to the **Selling Company** at the time of sale.

_____ **MONTHS**

If no term is reflected above, the thirty-six (36) month term will apply. This **Contract** begins on the **Contract** sale date and will end when the term has elapsed or the **Contract** has been cancelled, whichever occurs first.

WHAT IS COVERED

Coverage afforded under this **Service Contract** applies ONLY to the D.O.T. approved tires and OEM wheels on the RV described above at the time of delivery. However, in the event of a **Covered Repair**, any D.O.T/OEM replacement will also be covered. In the event of a **Covered Repair**, the **Administrator** agrees to reimburse **You** for the **Cost** incurred for the repair or replacement of the tires and wheels specified above, subject to the terms, conditions, and limitations herein. There is no deductible.

1. **FLAT TIRES**: The **Administrator** will reimburse **You** for any tire repair necessary because of a **Covered Failure**.
2. **TIRES**: The **Administrator** will reimburse **You** for the replacement of a covered tire if the tire becomes non-repairable due to a **Covered Failure**.
3. **WHEELS (RIMS)**: The **Administrator** will reimburse **You** for expenses resulting from the repair or replacement of wheels rendered **Unserviceable** due to a **Covered Failure** as described in this **Service Contract**.
4. **EMERGENCY ROAD SERVICE**: In the event of a **Covered Repair**, the **Administrator** agrees to reimburse **You** for an amount up to $100 for towing assistance or flat tire change when directly associated with a **Covered Failure**.

WHAT IS NOT COVERED

This Service Contract does not cover the following:

A. **Any repair or replacement made without prior authorization from the Administrator.**
B. **Any repair or replacement covered by the manufacturer, any warranty, or recall.**
C. **Damage, failure, or loss due to negligence, abuse, misuse, collision, upset, railroad crossing, or vandalism.**
D. **Destruction or damage to a tire or wheel due to off-road vehicle use, construction site use, or an impact with an engineered obstruction in the highway or roadway (including but not limited to curbs).**
E. **Any tire repair or replacement due to dry-rot, cracking, or peeling of tread.**
F. **Tires that prematurely fail because of overloading, improper loading, or improper inflation.**
G. **Used, retread, or remanufactured tires.**
H. **Tires that are not D.O.T. certified or do not meet the specifications prescribed by the manufacturer of the RV listed in this Service Contract.**
I. **Any wheel that is not OEM for the RV listed in this Service Contract.**
J. **Any failure occurring when any portion of the tread depth on the failed tire is 3/32 of an inch or less.**
K. **Tires transferred from another RV.**
L. **Any damage or failure resulting from rust or corrosion.**
M. **Repairs or replacements made outside the contiguous United States or if the Vehicle is registered outside the contiguous United States.**
N. **Any consequential loss or damage whatsoever, including loss, damage or injury to persons or property resulting from the failure of any tire or wheel.**

THIS CONTRACT IS NOT INSURANCE; IT IS A SERVICE CONTRACT IS BETWEEN YOU AND THE ADMINISTRATOR OBLIGOR. PURCHASE OF THIS SERVICE CONTRACT IS NOT REQUIRED IN ORDER TO PURCHASE AN RV OR TO OBTAIN RV FINANCING.

I HAVE READ THIS **CONTRACT**; I UNDERSTAND AND AGREE TO ITS TERMS AND CONDITIONS. THE ABOVE INFORMATION IS TRUE AND CORRECT TO THE BEST OF **MY** KNOWLEDGE AND BELIEF, AND I AGREE TO THE COVERAGE HEREIN.

SIGNATURE _____ **DATE** _____

SERVICE CONTRACT PRICE	$

CLAIMS PROCEDURE

To obtain the benefits provided by this **Service Contract**, the **Service Contract Holder** must:

1. Call the **Administrator's** toll free claims number, [redacted], for instructions and obtain an authorization number before work commences.
2. Make all tires and wheels requiring replacement available for inspection.
3. Submit legible copies of all repair orders, sales invoices, and other relevant documentation to the **Administrator** on request.

DEFINITIONS

- **ADMINISTRATOR**: [redacted].
- **COST**: The customary parts and labor charges required to complete a **Covered Repair**, which in no case will exceed the manufacturer's suggested retail price for parts or the labor allowances defined in the manufacturer's labor time guide or other parts and labor time guides recognized by the RV industry. **The Administrator reserves the right to use replacement wheels of "like kind and quality" at the Administrator's discretion.**
- **COVERED FAILURE**: The inability of a covered component(s) to function in the manner for which it was designed due to contact with a **Road Hazard** or because of a defect in materials or faulty workmanship. This inability is not due to misuse or abuse, and it specifically excludes normal and excessive "wear and tear." Any tire with 3/32 of tread depth or below is not eligible for coverage. Please see "WHAT IS NOT COVERED" for a list of other exclusions.
- **COVERED REPAIR**: The repair or replacement of a tire or wheel authorized by the **Administrator**.
- **ROAD HAZARD**: Any abnormal road conditions and or objects such as potholes, rocks, metal scraps, nails, glass, and other road debris that may cause a failure to a covered tire and wheel.
- **SERVICE CONTRACT** or **CONTRACT**: This document in its entirety, which explains the coverage and limitations afforded to you.
- **SERVICE CONTRACT HOLDER**, **CONTRACT HOLDER**, or **YOU**: The person (s) whose name is listed as the **Purchaser** on page one of this **Service Contract**, or the private person to whom this **Service Contract** has been transferred.
- **UNSERVICEABLE**: Not "fit to be used." An **Unserviceable** wheel is one that is not "fit to be used" to the extent it fails to seal with the bead of the tire.

CANCELLATION AND RENEWAL

CANCELLATION BY ADMINISTRATOR

The **Administrator** may cancel this **Contract** for material misrepresentation or substantial breaches of contractual duties, conditions, or warranties.

CANCELLATION BY CONTRACT HOLDER

You may cancel this **Contract** at any time by returning this **Contract** with a written cancellation request to the **Administrator**. If the **Administrator** receives **Your** request within the first thirty (30) days from the Sale Date/Commencement Date, and if no **Covered Repair** has been filed, then **You** will receive a full refund. If the **Administrator** receives **Your** request after the first thirty (30) days from the Sale Date/Commencement Date, or after a **Covered Repair** has been filed, then **You** will receive a pro rata refund.

CANCELLATION PROVISIONS

To determine a pro rata refund, the **Administrator** will divide the number of covered days remaining on the contract by the original number of covered days, and then multiply the quotient by the **Contract** purchase price. The **Administrator** will apply a $50 cancellation fee to all pro rata cancellations. **NOTE**: Transferred **Service Contracts** are not eligible for cancellation refunds.

RENEWAL

This **Contract** is non-renewable.

TRANSFER

If the RV identified on the declarations page is sold, the **Service Contract Holder** may transfer this **Service Contract** to another person (other than a dealership) within thirty (30) days of ownership transfer. This **Service Contract** may only be transferred once. Please complete the following steps for transfer:

1. Type, or carefully print, the name and address of the person to whom **You** wish to transfer ownership of this **Service Contract**:

   Name: _____

   Street Address: _____

   City: _____ State: _____ Zip: _____

2. The original **Service Contract Holder** must sign here: _____
3. Enclose a check or money order in the amount of $50 payable to [redacted].
4. Enclose proof of transfer of ownership (Bill of Sale, Registration, etc.).
5. Send this original **Service Contract**, proof of ownership transfer, and your payment, to [redacted].

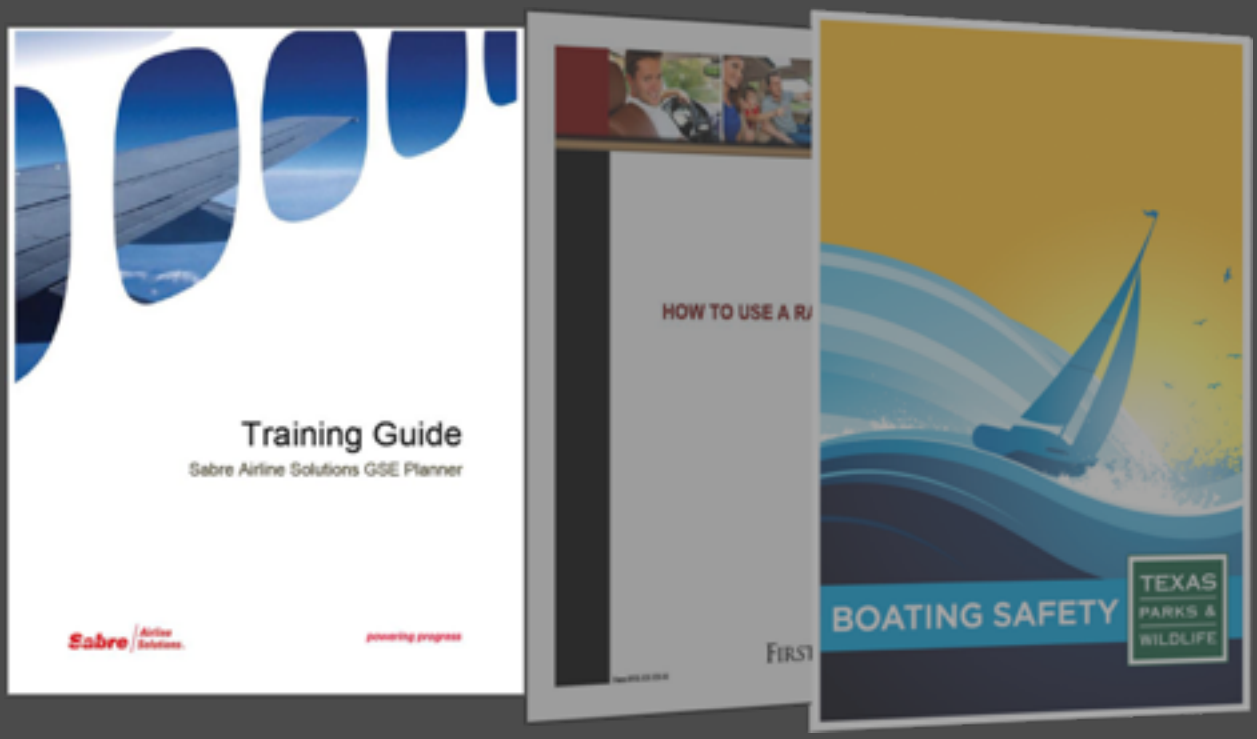
   NOTE: The transfer will be recorded, and the original **Service Contract** will be mailed to the new owner.

PRIOR AUTHORIZATION MUST BE OBTAINED FROM THE ADMINISTRATOR BEFORE THE COMMENCEMENT OF ALL REPAIRS. PLEASE CALL [redacted] FOR AUTHORIZATION AND INSTRUCTIONS.

Manuals

Explain it with clarity, leaving no question unanswered.

How to Use a Rate Card Technical Training Bulletin



Instruction manuals should be clear, concise, and cohesive. They should communicate every aspect of a task with total accuracy, to the point that a complete novice could read the manual and know how to accomplish the tasks set before them.

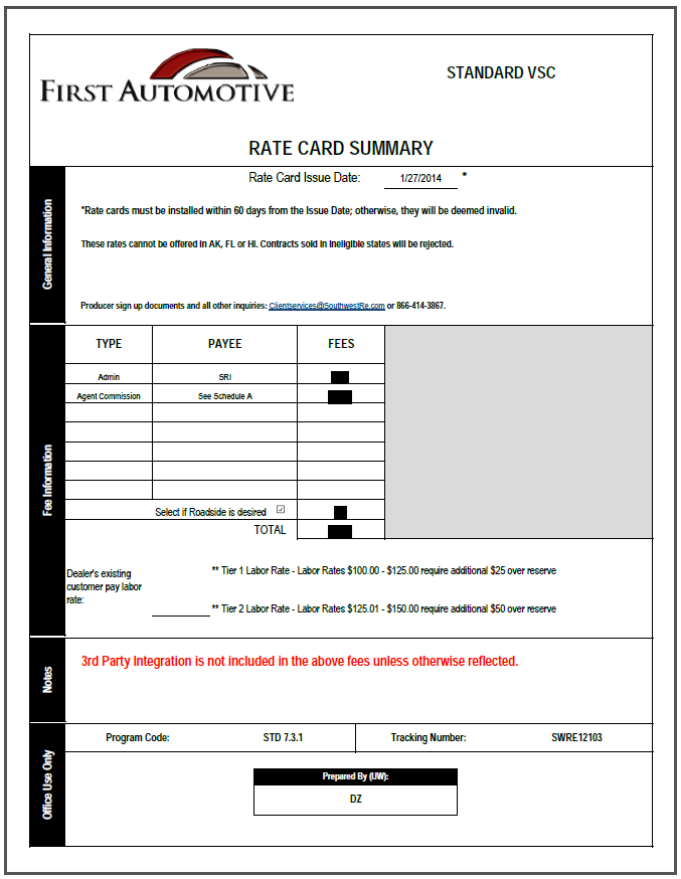
I see writing manuals as a challenge: To create a useful document that will help someone accomplish a task without missing anything in the process. I feel a true “completionist” attitude when working on a manual. For the following project, I worked with SMEs and even became an expert myself from time to time to create the following manuals.

You can see more excerpts of manuals on my website, linked here.

Section 3.0: Rate Cards

3.1: Rate Cards Defined

Rate cards show available terms, coverage levels, vehicle classes, vehicle eligibility, and form code information for a contract, as well as the effective date for the rate card itself. Rate cards may show agent cost, retail cost, or dealer cost of a contract, depending on what kind of rate cards you request from the Administrator. In this sample, the rate cards show the dealer costs for each level of coverage, which includes agent commission, vehicle surcharges, optional coverage, deductible options, and mileage surcharges. Below are images of the example "Rate Card Summary" sheet (see **Section 3.2** for more information) and an example "Rate & Service Contract Information" sheet (see **Section 3.3** for more information) for the Standard VSC.



FIRST AUTOMOTIVE

STANDARD VSC

RATE CARD SUMMARY

Rate Card Issue Date: 1/27/2014 *

General Information

*Rate cards must be installed within 60 days from the Issue Date; otherwise, they will be deemed invalid.

These rates cannot be offered in AK, FL or HI. Contracts sold in ineligible states will be rejected.

Producer sign up documents and all other inquiries: clientservices@SouthwestRe.com or 866-414-3867.

Fee Information

TYPE	PAYEE	FEES
Admin	SRI	[redacted]
Agent Commission	See Schedule A	[redacted]
Select if Roadside is desired ☑		[redacted]
TOTAL		[redacted]

Dealer's existing customer pay labor rate: _____

** Tier 1 Labor Rate - Labor Rates $100.00 - $125.00 require additional $25 over reserve

** Tier 2 Labor Rate - Labor Rates $125.01 - $150.00 require additional $50 over reserve

Notes

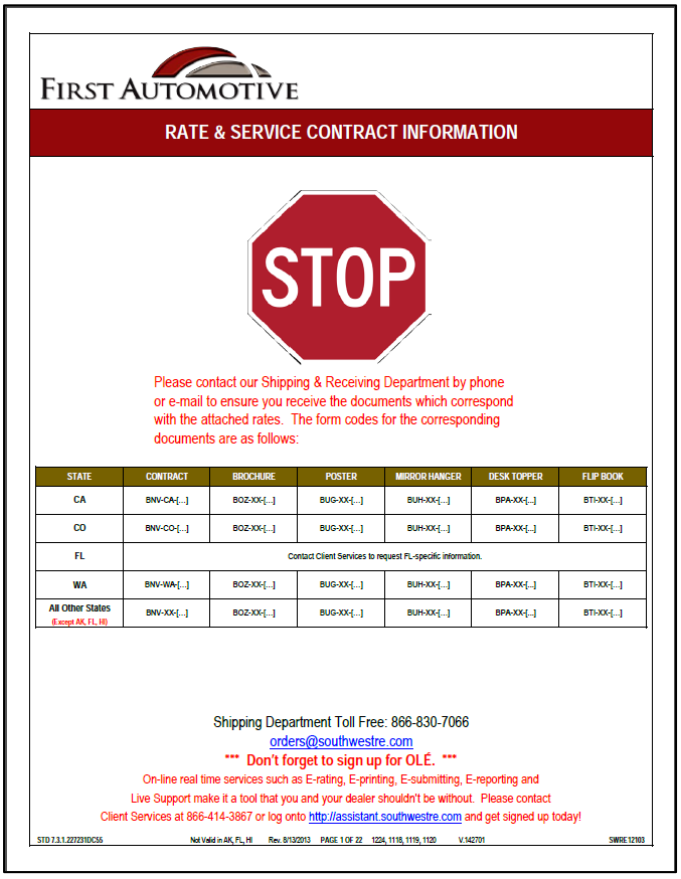
3rd Party Integration is not included in the above fees unless otherwise reflected.

Office Use Only

Program Code:	STD 7.3.1	Tracking Number:	SWRE12103

Prepared By (UW):

DZ



FIRST AUTOMOTIVE

RATE & SERVICE CONTRACT INFORMATION

STOP

Please contact our Shipping & Receiving Department by phone or e-mail to ensure you receive the documents which correspond with the attached rates. The form codes for the corresponding documents are as follows:

STATE	CONTRACT	BROCHURE	POSTER	MIRROR HANGER	DESK TOPPER	FLIP BOOK
CA	BNV-CA-[...]	BOZ-XX-[...]	BUG-XX-[...]	BUH-XX-[...]	BPA-XX-[...]	BTI-XX-[...]
CO	BNV-CO-[...]	BOZ-XX-[...]	BUG-XX-[...]	BUH-XX-[...]	BPA-XX-[...]	BTI-XX-[...]
FL	Contact Client Services to request FL-specific information.					
WA	BNV-WA-[...]	BOZ-XX-[...]	BUG-XX-[...]	BUH-XX-[...]	BPA-XX-[...]	BTI-XX-[...]
All Other States (Except AK, FL, HI)	BNV-XX-[...]	BOZ-XX-[...]	BUG-XX-[...]	BUH-XX-[...]	BPA-XX-[...]	BTI-XX-[...]

Shipping Department Toll Free: 866-830-7066

orders@southwestre.com

*** Don't forget to sign up for OLE. ***

On-line real time services such as E-rating, E-printing, E-submitting, E-reporting and Live Support make it a tool that you and your dealer shouldn't be without. Please contact Client Services at 866-414-3867 or log onto http://assistant.southwestre.com and get signed up today!

STD 7.3.1.227231IDC55 Not Valid in AK, FL, HI Rev. 8/13/2013 PAGE 1 OF 22 1224, 1118, 1119, 1120 V.142701 SWRE12103

3.2: Rate Card Summary Sheet Overview

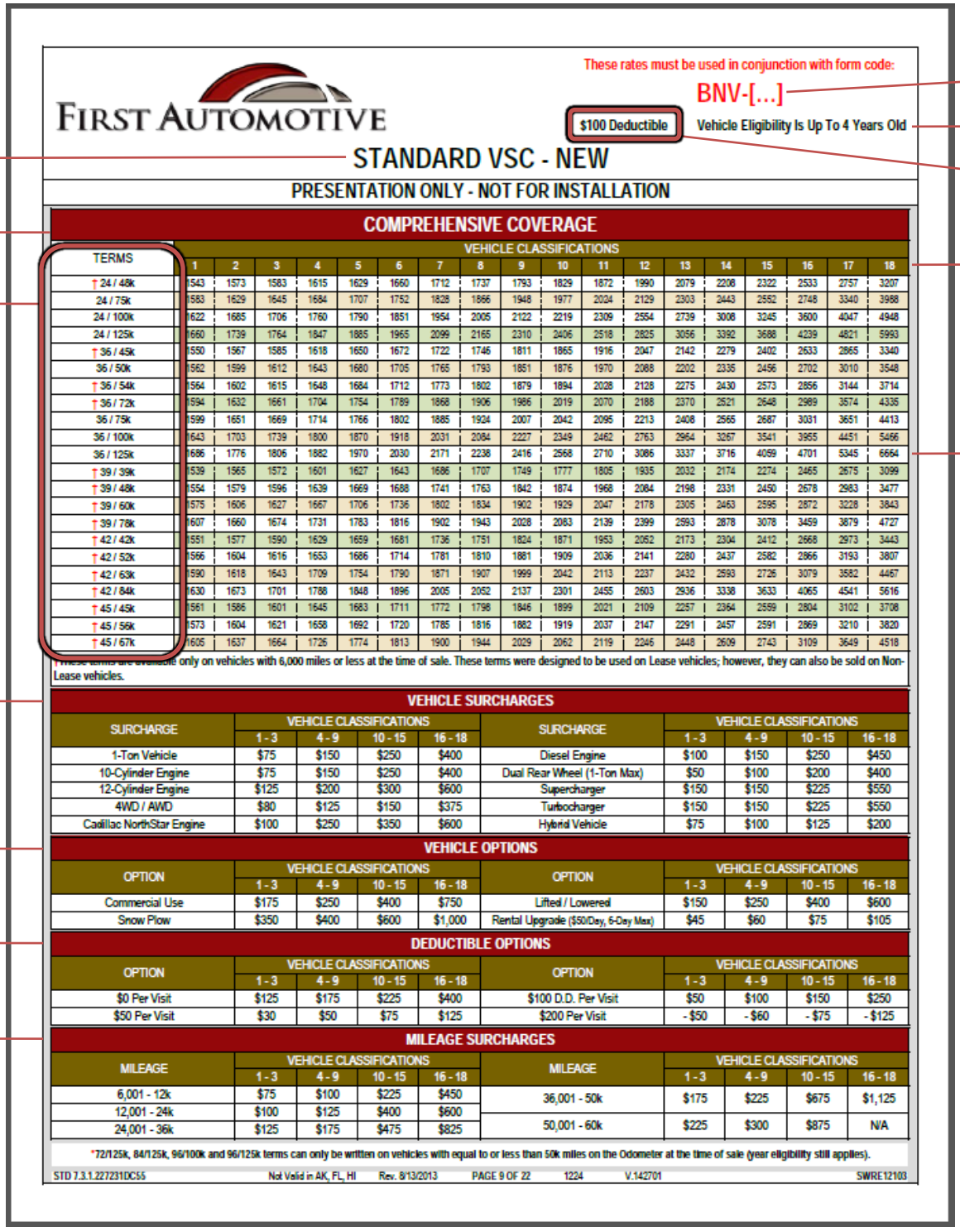
The "Rate Card Summary" (RCS) sheet shows the rate card issue date, what states the program can be offered in, the fees associated with the program that make up part of the dealer cost (e.g. Admin fee, agent commission, and roadside assistance fee, etc.), the tracking number of the rate card (e.g. SWRE12103 is the tracking number of the example rate card shown throughout this section), and any special notes about the program. This sheet accompanies the rate card, but is sent as a separate PDF because it shows the breakdown of fees that agents specify when requesting rate cards.

3.3: Rate & Service Contract Information Sheet Overview

The "Rate & Service Contract Information" sheet shows which contracts correspond to the rate card, which states those contracts and rates can be used in, form codes for point-of-sale materials, and contact information for ordering supplies for the program. All of the selling dealer's point-of sale material and contract form codes must match the information listed on the selling company's "Rate & Service Contract Information" sheet.

3.4: Cost Sheets Overview

Below is an example of a cost sheet for new vehicle terms under the Standard VSC. The cost amounts included in this rate card are not necessarily representative of current costs for the Standard VSC. Terms, classifications, costs, form codes, and eligibility are subject to change. Not every cost sheet will look the same or be organized in the same manner as this example. Each section is marked with red letters that correspond to the descriptions listed on page 8.



FIRST AUTOMOTIVE

These rates must be used in conjunction with form code:

BNV-[...]

$100 Deductible

Vehicle Eligibility Is Up To 4 Years Old

STANDARD VSC - NEW

PRESENTATION ONLY - NOT FOR INSTALLATION

COMPREHENSIVE COVERAGE

TERMS	VEHICLE CLASSIFICATIONS																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
† 24 / 48k	1543	1573	1583	1615	1629	1660	1712	1737	1793	1829	1872	1990	2079	2206	2322	2533	2757	3207
24 / 75k	1583	1629	1645	1684	1707	1752	1828	1866	1948	1977	2024	2129	2303	2443	2552	2748	3340	3988
24 / 100k	1622	1685	1706	1760	1790	1851	1954	2005	2122	2219	2309	2554	2739	3008	3245	3600	4047	4948
24 / 125k	1660	1739	1764	1847	1885	1965	2099	2165	2310	2406	2518	2825	3056	3392	3688	4239	4821	5993
† 36 / 45k	1550	1567	1585	1618	1650	1672	1722	1746	1811	1865	1916	2047	2142	2279	2402	2633	2865	3340
36 / 50k	1562	1599	1612	1643	1680	1705	1765	1793	1851	1876	1970	2088	2202	2335	2456	2702	3010	3548
† 36 / 54k	1564	1602	1615	1648	1684	1712	1773	1802	1879	1894	2028	2128	2275	2430	2573	2856	3144	3714
† 36 / 72k	1594	1632	1661	1704	1754	1789	1868	1906	1986	2019	2070	2188	2370	2521	2648	2989	3574	4335
36 / 75k	1599	1651	1669	1714	1766	1802	1885	1924	2007	2042	2095	2213	2408	2565	2687	3031	3651	4413
36 / 100k	1643	1703	1739	1800	1870	1918	2031	2084	2227	2349	2462	2763	2964	3267	3541	3955	4451	5466
36 / 125k	1686	1776	1806	1882	1970	2030	2171	2238	2416	2568	2710	3086	3337	3716	4099	4701	5345	6664
† 39 / 39k	1539	1565	1572	1601	1627	1643	1686	1707	1749	1777	1805	1935	2032	2174	2274	2465	2675	3099
† 39 / 48k	1554	1579	1596	1639	1669	1688	1741	1763	1842	1874	1968	2084	2198	2331	2450	2678	2983	3477
† 39 / 60k	1575	1606	1627	1667	1706	1736	1802	1834	1902	1929	2047	2178	2305	2463	2595	2872	3228	3843
† 39 / 78k	1607	1660	1674	1731	1783	1816	1902	1943	2028	2083	2139	2399	2593	2878	3078	3459	3879	4727
† 42 / 42k	1551	1577	1590	1629	1659	1681	1736	1751	1824	1871	1953	2052	2173	2304	2412	2668	2973	3443
† 42 / 52k	1566	1604	1616	1653	1686	1714	1781	1810	1881	1909	2036	2141	2280	2437	2582	2866	3193	3807
† 42 / 63k	1590	1618	1643	1709	1754	1790	1871	1907	1999	2042	2113	2237	2432	2593	2726	3079	3582	4467
† 42 / 84k	1630	1673	1701	1788	1848	1896	2005	2052	2137	2301	2455	2603	2936	3338	3633	4065	4541	5616
† 45 / 45k	1561	1586	1601	1645	1683	1711	1772	1798	1846	1899	2021	2109	2257	2364	2559	2804	3102	3708
† 45 / 56k	1573	1604	1621	1658	1692	1720	1785	1816	1882	1919	2037	2147	2291	2457	2591	2869	3210	3820
† 45 / 67k	1605	1637	1664	1726	1774	1813	1900	1944	2029	2062	2119	2246	2448	2609	2743	3109	3649	4518

† These terms are available only on vehicles with 6,000 miles or less at the time of sale. These terms were designed to be used on Lease vehicles; however, they can also be sold on Non-Lease vehicles.

VEHICLE SURCHARGES

SURCHARGE	VEHICLE CLASSIFICATIONS				SURCHARGE	VEHICLE CLASSIFICATIONS			
	1 - 3	4 - 9	10 - 15	16 - 18		1 - 3	4 - 9	10 - 15	16 - 18
1-Ton Vehicle	$75	$150	$250	$400	Diesel Engine	$100	$150	$250	$450
10-Cylinder Engine	$75	$150	$250	$400	Dual Rear Wheel (1-Ton Max)	$50	$100	$200	$400
12-Cylinder Engine	$125	$200	$300	$600	Supercharger	$150	$150	$225	$550
4WD / AWD	$80	$125	$150	$375	Turbocharger	$150	$150	$225	$550
Cadillac NorthStar Engine	$100	$250	$350	$600	Hybrid Vehicle	$75	$100	$125	$200

VEHICLE OPTIONS

OPTION	VEHICLE CLASSIFICATIONS				OPTION	VEHICLE CLASSIFICATIONS			
	1 - 3	4 - 9	10 - 15	16 - 18		1 - 3	4 - 9	10 - 15	16 - 18
Commercial Use	$175	$250	$400	$750	Lifted / Lowered	$150	$250	$400	$600
Snow Plow	$350	$400	$600	$1,000	Rental Upgrade ($50/Day, 6-Day Max)	$45	$60	$75	$105

DEDUCTIBLE OPTIONS

OPTION	VEHICLE CLASSIFICATIONS				OPTION	VEHICLE CLASSIFICATIONS			
	1 - 3	4 - 9	10 - 15	16 - 18		1 - 3	4 - 9	10 - 15	16 - 18
$0 Per Visit	$125	$175	$225	$400	$100 D.D. Per Visit	$50	$100	$150	$250
$50 Per Visit	$30	$50	$75	$125	$200 Per Visit	- $50	- $60	- $75	- $125

MILEAGE SURCHARGES

MILEAGE	VEHICLE CLASSIFICATIONS				MILEAGE	VEHICLE CLASSIFICATIONS			
	1 - 3	4 - 9	10 - 15	16 - 18		1 - 3	4 - 9	10 - 15	16 - 18
6,001 - 12k	$75	$100	$225	$450	36,001 - 50k	$175	$225	$675	$1,125
12,001 - 24k	$100	$125	$400	$600					
24,001 - 36k	$125	$175	$475	$825	50,001 - 60k	$225	$300	$875	N/A

*72/125k, 84/125k, 96/100k and 96/125k terms can only be written on vehicles with equal to or less than 50k miles on the Odometer at the time of sale (year eligibility still applies).

STD 7.3.1.227231DC55 Not Valid in AK, FL, HI Rev. 8/13/2013 PAGE 9 OF 22 1224 V.142701 SWRE12103

A. B. C. D. E. F. G. H. I. J. K. L.

A. Contract Form Code

This area shows which contract form code corresponds to the rate card. The form code listed in this section must match the form code on the selling dealer's preprinted contracts.

B. Vehicle Eligibility by Year

This is the maximum age a vehicle can be to still be eligible for the level of coverage shown, not including the current year (e.g. for new coverage under the Standard VSC, a vehicle must be 4 years old or newer. If it is currently 2014, eligible model years are 2010-2014). If a vehicle is older than what is stated here, it is NOT eligible for that specific coverage.

C. Default Deductible

This is the default deductible for the pricing shown on the cost sheet. If the customer selects a different deductible, the contract cost will change (see **K. Deductible Options** below for more information).

D. Contract Name and Term Type

This heading shows the contract name (Standard VSC) and the term type (New). The contract name shown here must match the contract, and the term type shown here must match the selected type of term on the contract, or the pricing will be inaccurate. Not every cost sheet will display the term type in this location, and not all contracts have term types.

In the example rate card, the corresponding VSC has separate sections to capture both "new" and "used" vehicle terms, which correspond to the "new" and "used" sections of the cost sheets. "New" terms are not exclusive to brand new vehicles. Some vehicles will qualify for "new" vehicle terms even if they are pre-owned, so long as they do not exceed mileage limits and age limits stated on the rate card. Each term type also displays its own coverage options.

E. Coverage Level

This subheading shows the name of the coverage level. Customers select the level of coverage they desire based on what components they want covered, depending on vehicle eligibility. The selling company must match coverage selected on the contract with the coverage level heading on the rate card, or the pricing will be inaccurate.

F. Terms Column

This column shows the available terms for the level of coverage listed in the subheading above it. Many terms have special notations (e.g. the 24/48K term on this rate card). Be sure to read the notations about the selected term, as it will show important information. In some instances, some levels of coverage have more terms than can fit on one page. To make certain that no terms are overlooked, check each page of the rate card for additional terms or special notations.

G. Vehicle Classifications Row

This row shows the vehicle classes for the listed level of coverage. Vehicle classes are often written as numbers or letters (in this case, numbers). See **Section 3.0** for more information on classification charts and vehicle classification.

H. Base Dealer Cost

This table shows the base dealer cost for each term and vehicle classification combination for the selected level of coverage. These costs do not include vehicle surcharges, optional coverage, deductible options, or mileage surcharges.

I. Vehicle Surcharges

This table shows all of the vehicle surcharges and their costs for the listed level of coverage. All vehicle surcharges are mandatory; if a surcharge is not selected and the surcharge applies to the vehicle (e.g. if a vehicle has a 10-cylinder engine), the contract may be rejected by the Administrator.

J. Vehicle Options

This table shows all optional coverage for the listed level of coverage, along with the associated costs. Each option cost may be separated by vehicle class or option type. Vehicle options are not mandatory, but if they are not selected and paid at the time the contract is sold, then the coverage will not be available to the customer.

K. Deductible Options

This table shows all available deductibles for the listed level of coverage and their costs. By default, these rates have deductible of $100 at no additional charge as shown on the previous page.

L. Mileage Surcharges

This table shows surcharges for extended mileage eligibility. The cost of each numerical range of miles (i.e. "mileage band") may be separated by vehicle class, mileage range, or both. If a vehicle has an odometer reading higher than the highest mileage band maximum (in this case, 60,000 miles), then the vehicle is NOT eligible for that level of coverage.

The following sections (**Sections 3.5-3.9**) use the information in **Sections 3.4:D-L** to calculate the cost of a contract.

3.5: Cost Sheets—Coverage and Term Section

The coverage and term section of the cost sheet provides the base dealer cost for a contract derived from the coverage selected, term selected, and the classification of the vehicle (see **Section 2.0** for more information on vehicle class). To determine the base dealer cost of a contract, follow the steps below. The numbers in red boxes correspond to the steps below. In the example below, we will use the 2012 Nissan Altima with 18,700 miles.

1.
2.
3.
4.

COMPREHENSIVE COVERAGE																		
TERMS	VEHICLE CLASSIFICATIONS																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
† 24 / 48k	1543	1573	[illegible]	1615	1629	1660	1712	1737	1793	1829	1872	1990	2079	2208	2322	2533	2757	3207
24 / 75k	1583	1629	1645	1684	1707	1752	1828	1866	1948	1977	2024	2129	2303	2443	2552	2748	3340	3988
24 / 100k	1622	1685	1706	1760	1790	1851	1954	2005	2122	2219	2309	2554	2739	3008	3245	3600	4047	4948
24 / 125k	1660	1739	1764	1847	1885	1965	2099	2165	2310	2406	2518	2825	3056	3392	3688	4239	4821	5993
† 36 / 45k	1550	1567	1585	1618	1650	1672	1722	1746	1811	1865	1916	2047	2142	2279	2402	2633	2865	3340
36 / 50k	1562	1599	1612	1643	1680	1705	1765	1793	1851	1876	1970	2088	2202	2335	2456	2702	3010	3548
† 36 / 54k	1564	1602	1615	1648	1684	1712	1773	1802	1879	1894	2028	2128	2275	2430	2573	2856	3144	3714
† 36 / 72k	1594	1632	1661	1704	1754	1789	1868	1906	1986	2019	2070	2188	2370	2521	2648	2989	3574	4335
[illegible]	1599	1651	[illegible]	1714	1766	1802	1885	1924	2007	2042	2095	2213	2408	2565	2687	3031	3651	4413
36 / 100k	1643	1703	1739	1800	1870	1918	2031	2084	2227	2349	2462	2763	2964	3267	3541	3955	4451	5466
[illegible]	1686	1776	[illegible]	1882	1970	2030	2171	2238	2416	2568	2710	3086	3337	3716	4059	4701	5345	6664
† 39 / 39k	1539	1565	1572	1601	1627	1643	1686	1707	1749	1777	1805	1935	2032	2174	2274	2465	2675	3099
† 39 / 48k	1554	1579	1596	1639	1669	1688	1741	1763	1842	1874	1968	2084	2198	2331	2450	2678	2983	3477
† 39 / 60k	1575	1606	1627	1667	1706	1736	1802	1834	1902	1929	2047	2178	2305	2463	2595	2872	3228	3843
† 39 / 78k	1607	1660	1674	1731	1783	1816	1902	1943	2028	2083	2139	2399	2593	2878	3078	3459	3879	4727
† 42 / 42k	1551	1577	1590	1629	1659	1681	1736	1751	1824	1871	1953	2052	2173	2304	2412	2668	2973	3443
† 42 / 52k	1566	1604	1616	1653	1686	1714	1781	1810	1881	1909	2036	2141	2280	2437	2582	2866	3193	3807
† 42 / 63k	1590	1618	1643	1709	1754	1790	1871	1907	1999	2042	2113	2237	2432	2593	2726	3079	3582	4467
† 42 / 84k	1630	1673	1701	1788	1848	1896	2005	2052	2137	2301	2455	2603	2936	3338	3633	4065	4541	5616
† 45 / 45k	1561	1586	1601	1645	1683	1711	1772	1798	1846	1899	2021	2109	2257	2364	2559	2804	3102	3708
† 45 / 56k	1573	1604	1621	1658	1692	1720	1785	1816	1882	1919	2037	2147	2291	2457	2591	2869	3210	3820
† 45 / 67k	1605	1637	1664	1726	1774	1813	1900	1944	2029	2062	2119	2246	2448	2609	2743	3109	3649	4518

†These terms are available only on vehicles with 6,000 miles or less at the time of sale. These terms were designed to be used on Lease vehicles; however, they can also be sold on Non-Lease vehicles.

1. Make sure the coverage level listed matches the level of coverage that the customer selected on the contract.
2. Find the rate class of the vehicle in the "Vehicle Classifications" row. In this example, the class of a Nissan Altima is 3. See **Section 2.3** for more information on determining vehicle classification.
3. Find the term the customer selected in the "Terms" column. Pay attention to any special notations and check below the coverage and term section for their meanings (in this example, there is no special notation for the selected term).
4. Find the space where the vehicle classification and selected term meet. The number here is the base dealer cost of the contract (including agent commission and admin fees found on the RCS page of the rate card). In this example, the base dealer cost is $1739.

3.6: Cost Sheets—Vehicle Surcharges Section

Vehicle surcharges are mandatory when item(s) listed in the "Vehicle Surcharges" section of the cost sheet apply to the vehicle (e.g. if the vehicle has a 12-cylinder engine, the "12-Cylinder Engine" surcharge must be selected and paid for the contract to be valid). If any surcharges apply to the vehicle are not selected and paid, coverage may be denied. To determine the costs for surcharges, follow the steps on page 8. The numbers in red boxes correspond to the steps below. Since the original example vehicle (2012 Nissan Altima with 18,700 miles) does not need any surcharges, we will apply any class 3 vehicle with a 12-cylinder engine to the chart below. This example surcharge will not be used in the calculations shown in **Section 3.10**.

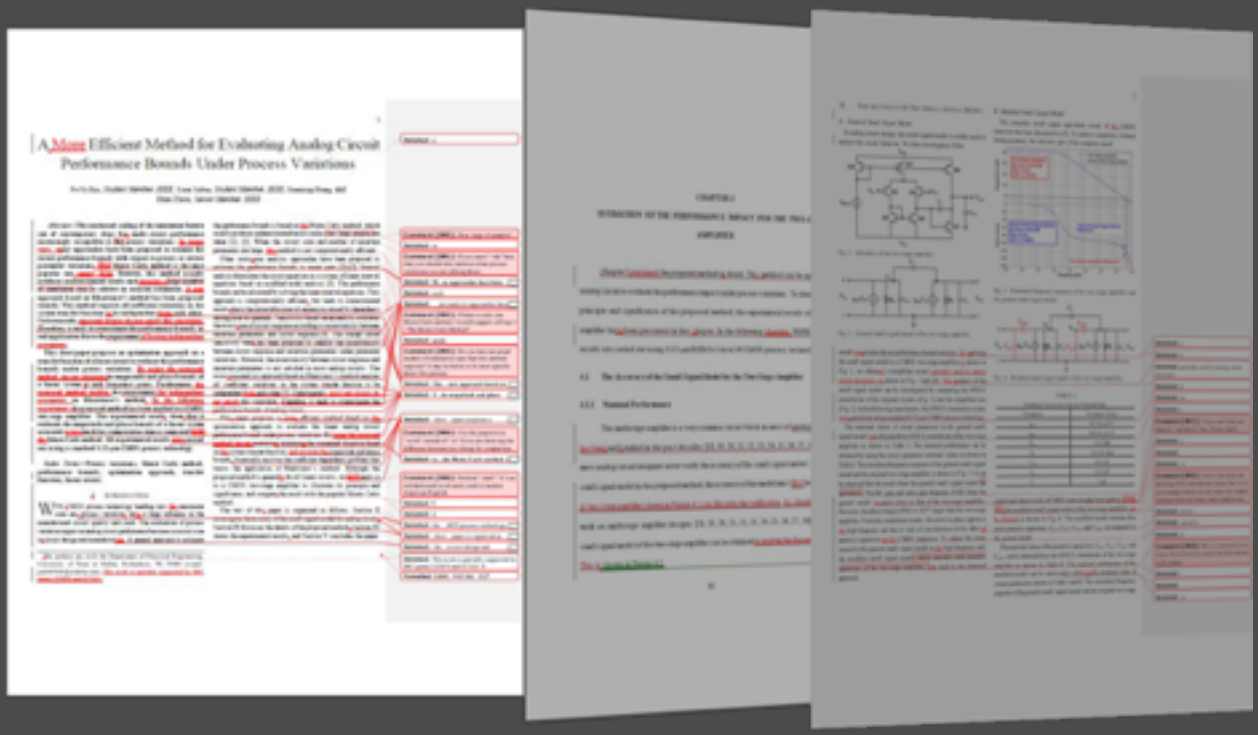
1.
2.
3.

VEHICLE SURCHARGES									
SURCHARGE	VEHICLE CLASSIFICATIONS				SURCHARGE	VEHICLE CLASSIFICATIONS			
	1 - 3	4 - 9	10 - 15	16 - 18		1 - 3	4 - 9	10 - 15	16 - 18
1-Ton Vehicle	[illegible]	$150	$250	$400	Diesel Engine	$100	$150	$250	$450
10-Cylinder Engine	[illegible]	$150	$250	$400	Dual Rear Wheel (1-Ton Max)	$50	$100	$200	$400
12-Cylinder Engine	$125	$200	$300	$600	Supercharger	$150	$150	$225	$550
4WD / AWD	[illegible]	$125	$150	$375	Turbocharger	$150	$150	$225	$550
Cadillac NorthStar Engine	$100	$250	$350	$600	Hybrid Vehicle	$75	$100	$125	$200

Comprehensive Editing

Make the author's words say exactly what they want to say.

Electrical Engineering White Paper



I love editing documents. It's like picking apart a complicated machine and seeing exactly what makes it tick, then putting it back together again better than it was before.

As a freelance technical writer, I edited white papers and full doctoral dissertations for graduate students for whom English was a second language. I also edited dozens of résumés for clients and friends, positioning them to get the jobs they went after.

You can see some examples of editing I did on my website, linked here.

A More Efficient Method for Evaluating Analog Circuit Performance Bounds Under Process Variations

Po-Yu Kuo, *Student Member, IEEE*, Siwat Saibua, *Student Member, IEEE*, Guanming Huang, and Dian Zhou, *Senior Member, IEEE*

***Abstract*—The continued scaling of the minimum feature size of contemporary chips has made circuit performance increasingly susceptible to the process variations. In recent years, many approaches have been proposed to estimate the circuit performance bounds with respect to process or circuit parameter variations. The Monte Carlo method is the most popular one among them. However, this method usually produces underestimated results and requires a large number of simulation runs to achieve an accurate estimation. A new approach based on Kharitonov's method has been proposed recently. This method requires all coefficient variations in the system transfer function to be independent from each other. Unfortunately, most real circuits do not satisfy this constraint. Therefore, it tends to overestimate the performance bounds in real application due to the requirement of having independent parameters.**

This short paper proposes an optimization approach on a transfer function of a linear circuit to evaluate the performance bounds under process variations. By using the proposed method, we can calculate the magnitude and phase bounds of a linear system at each frequency point. Furthermore, the proposed method resolves the requirement for independent parameters in Kharitonov's method. In the following experiment, the proposed method has been applied to a CMOS two-stage amplifier. The experimental results show that it evaluates the magnitude and phase bounds of a linear system accurately using much less computation time as compared with the Monte Carlo method. All experimental results were carried out using a standard 0.35-μm CMOS process technology.

***Index Terms*—Process variations, Monte Carlo method, performance bounds, optimization approach, transfer function, linear circuit.**

I. Introduction

With CMOS process technology heading into the nanometer scale era, process variations have a large influence on the manufactured circuit quality and yield. The evaluation of process variation impact on analog circuit performance becomes a crucial issue in circuit design and manufacturing. A general approach to estimate the performance bounds is based on the Monte Carlo method, which usually produces underestimated results unless very large samples are taken [1], [2]. When the circuit scale and number of uncertain parameters are large, this method is not computationally efficient.

Other worst-case analysis approaches have been proposed to estimate the performance bounds in recent years [3]–[5]. Interval analysis formulates the circuit equations as a system of linear interval equations based on modified nodal analysis [3]. The performance bounds can be calculated by solving the linear interval equations. This approach is computationally efficient, but leads to overestimated results due to the intractable interval expansion caused by dependency among interval operands. Sensitivity-based vertex analysis evaluates the worst-case of circuit response according to monotonicity between uncertain parameters and circuit response [4]. The concept called sensitivity band has been proposed to identify the monotonicity between circuit response and uncertain parameters under parameter variations. However, the monotonicity between circuit response and uncertain parameters is not satisfied in most analog circuits. The worst-case analysis approach based on Kharitonov's method requires all coefficient variations in the system transfer function to be independent from each other [5]. Unfortunately, most real circuits do not satisfy this constraint. Therefore, it tends to overestimate the performance bounds of analog circuit.

This paper proposes a more efficient method based on the optimization approach to evaluate the linear analog circuit performance bounds under process variations. By using the proposed method, we can maximize/ minimize the concerned objective based on the system transfer function, and calculate the magnitude and phase bounds. It naturally resolves the coefficient dependency problem that limits the application of Kharitonov's method. Although the proposed method is generally for all linear circuits, we will apply it to a CMOS two-stage amplifier to illustrate its principle and significance, and compare the result with the popular Monte Carlo method.

The rest of this paper is organized as follows. Section II investigates the accuracy of the small signal model for analog circuit. Section III discusses the details of the proposed method. Section IV shows the experimental results, and Section V concludes the paper.

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II. The Accuracy Of The Small Signal Model

A. General Small Signal Model

In analog circuit design, the small signal model is widely used to analyze the circuit behavior. We first investigated if this

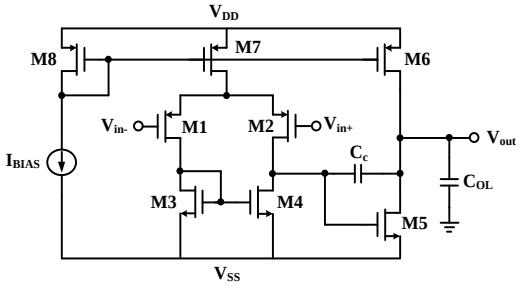

Fig. 1. Schematic of the two-stage amplifier.

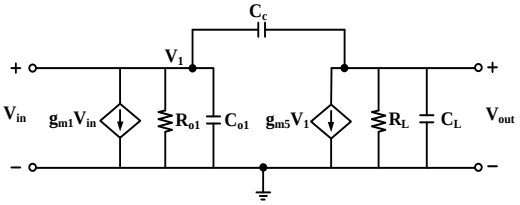

Fig. 2. General small signal model of the two-stage amplifier.

model was accurate for our performance bounds analysis. By applying the small signal model to a CMOS two-stage amplifier as shown in Fig. 1, we obtained a simplified circuit generally used by analog circuit designers, as shown in Fig. 2 [6]–[8]. The accuracy of the small signal model can be investigated by comparing the SPICE simulations of the original circuits (Fig. 1) and the simplified one (Fig. 2). In the following experiments, the SPICE simulation results were carried out using a standard 0.35-μm CMOS process technology.

The nominal values of circuit parameters in the general small signal model were obtained from SPICE simulations of the two-stage amplifier as shown in Table I. The nominal performance can be obtained by using the circuit parameter nominal values as shown in Table I. The simulated frequency response of the general small signal model and the original two-stage amplifier is shown in Fig. 3. It can be observed that the results from the general small signal model are optimistic. The DC gain and unity-gain frequency (UGF) from the general model are quite close to that of the two-stage amplifier. However, the phase margin (PM) is 4.07° larger than the two-stage amplifier. From the simulation results, the errors in phase appear at the high frequency end due to lack of consideration of the effect of parasitic capacitors in the CMOS transistor. To reduce the errors caused by the general small signal model at the high frequency end, the modified small signal model, which considers more parasitic capacitors of the two-stage amplifier, was used in the proposed approach.

B. Modified Small Signal Model

The complete small signal equivalent circuit of the CMOS transistor has been discussed in [9]. To achieve simplicity without losing accuracy, the intrinsic part of the complete small

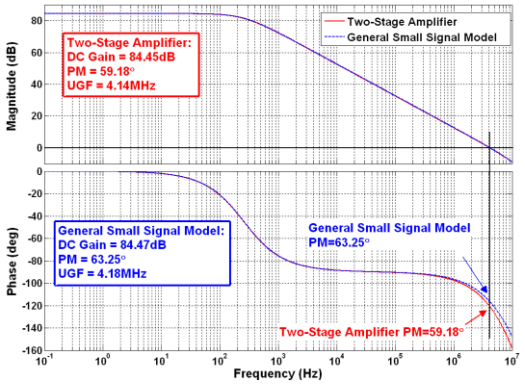

Fig. 3. Simulated frequency response of the two-stage amplifier and the general small signal model.

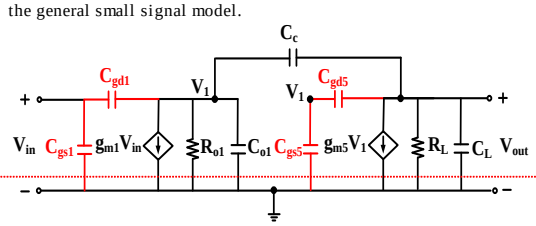

Fig. 4. Modified small signal model of the two-stage amplifier.

TABLE I
NOMINAL VALUE OF CIRCUIT PARAMETERS

Parameter	Nominal Value
g_{m1}	83.29 μA/V
g_{m5}	544.91 μA/V
R_{o1}	1.44 MΩ
R_L	255.07 KΩ
C_{o1}	0.66 pF
C_L	5.22 pF
C_c	3 pF

signal equivalent circuit of CMOS transistor has been applied. Using this, the modified small signal model of the two-stage amplifier can be obtained as shown in Fig. 4. The modified model contains four more parasitic capacitors, C_{gs1}, C_{gd1}, C_{gs5}, and C_{gd5}, as compared to the general model.

The nominal values of the parasitic capacitors, C_{gs1}, C_{gd1}, C_{gs5}, and C_{gd5}, can be obtained from the SPICE simulations of the two-stage amplifier as shown in Table II. The nominal performance of the modified model can be achieved by plotting the nominal value of circuit parameters shown in Table I and II. The simulated frequency response of the general small signal model and the original two-stage

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amplifier is shown in Fig. 5. From the simulation results, the phase margin (PM) of the modified model is 1.28° larger than the two-stage amplifier. The error in phase margin caused by the modified model is reduced compared to the general model shown in Fig. 2. Thus, we will use the modified small signal model in our proposed approach because it provides better accuracy.

$$H(s)=\frac{g_{m1}g_{m5}R_{o1}R_L+s\left[-R_{o1}R_L\left(C_cg_{m1}+C_{gd5}g_{m1}+C_{gd1}g_{m5}\right)\right]+s^2\left[R_{o1}R_LC_{gd1}\left(C_c+C_{gd5}\right)\right]}{1+s\left[R_L\left(C_L+C_c+C_{gd5}\right)+R_{o1}\left(C_c+C_{gd1}+C_{gd5}+C_{gs5}+C_{o1}\right)+g_{m5}R_{o1}R_L\left(C_c+C_{gd5}\right)\right]} \quad (1)$$
$$+s^2\left[R_{o1}R_LC_L\left(C_c+C_{gd1}+C_{gd5}+C_{gs5}+C_{o1}\right)+R_{o1}R_LC_c\left(C_{gd1}+C_{gs5}+C_{o1}\right)+R_{o1}R_LC_{gd5}\left(C_{gd1}+C_{gs5}+C_{o1}\right)\right]$$

TABLE II
NOMINAL VALUE OF PARASITIC CAPACITORS IN THE MODIFIED SMALL SIGNAL MODEL

Parameter	Nominal Value
C_{gs1}	212.18 fF
C_{gd1}	12.74 fF
C_{gs5}	493.89 fF
C_{gd5}	28.69 fF

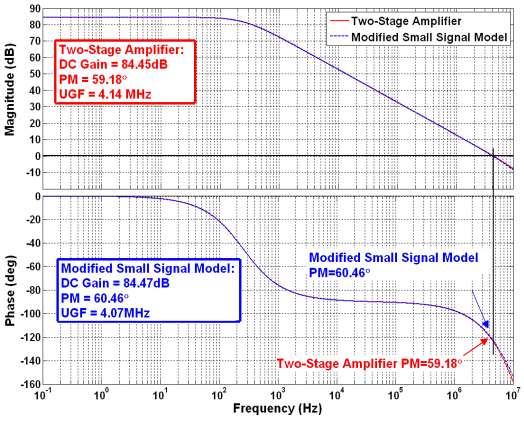

Fig. 5. Simulated frequency response of the two-stage amplifier and the modified small signal model.

III. THE PROPOSED METHOD

A. Parameter Dependency Problem in Kharitonov's Method

The Monte Carlo method is the most general approach to estimating the performance bounds of analog circuits [1], [2]. This method needs a large number of simulation runs to achieve an accurate estimation. When the circuit scale and number of uncertain parameters are large, the Monte Carlo method is not computationally efficient.

Kharitonov's method can evaluate the performance bounds based on the system transfer function [5]. By formulating the circuit as interval transfer function,

$$T(s,Q_N,Q_D)=\frac{N(s,Q_N)}{D(s,Q_D)}=\frac{a_0+a_1s+\cdots+a_ms^m}{b_0+b_1s+\cdots+b_ns^n} \quad (2)$$

where

$Q_N=\{a|a_i\in[a_i^-,a_i^+],i=0,1,\ldots,m\}$,

$Q_D=\{b|b_i\in[b_i^-,b_i^+],i=0,1,\ldots,n\}$,

$s\in[0,s_{\max}]$.

The term s indicates the interested frequency range. The upper and lower bounds of magnitude and phase are obtained respectively by solving the following optimization problems at each frequency point $s_i\in[0,s_{\max}]$

$$\max\left\|T(s_i,Q_N,Q_D)\right\| \quad w.r.p.t.\ a\in Q_a \text{ and } b\in Q_b$$
$$\min\left\|T(s_i,Q_N,Q_D)\right\| \quad w.r.p.t.\ a\in Q_a \text{ and } b\in Q_b$$
$$\max Ang(T(s_i,Q_N,Q_D)) \quad w.r.p.t.\ a\in Q_a \text{ and } b\in Q_b$$
$$\min Ang(T(s_i,Q_N,Q_D)) \quad w.r.p.t.\ a\in Q_a \text{ and } b\in Q_b \quad (3)$$

where

$\|T(s)\|$ and $Ang(T(s))$ are respectively the magnitude and phase of $T(s)$.

Note that optimization is defined with respect to parameter variation space $a\in Q_a$ and $b\in Q_b$.

To maintain the accuracy, we applied the complete transfer function of the modified small signal model shown in Fig. 4. The complete transfer function of the modified model of the two-stage amplifier is shown in (1). However, Kharitonov's method requires all coefficient variations in the system transfer function to be independent from each other. Unfortunately, almost any real circuit does not satisfy this constraint. For example, the transfer function (1) of the two-stage amplifier shown in Fig. 1, can be written in the expression as follows:

$$H(s)=\frac{a_0+a_1s+a_2s^2}{b_0+b_1s+b_2s^2} \quad (4)$$

where

$a_0=g_{m1}g_{m5}R_{o1}R_L$,

$a_1=-R_{o1}R_L\left(C_cg_{m1}+C_{gd5}g_{m1}+C_{gd1}g_{m5}\right)$,

$a_2=R_{o1}R_LC_{gd1}\left(C_c+C_{gd5}\right)$,

$b_0=1$,

$b_1=R_L\left(C_L+C_c+C_{gd5}\right)+R_{o1}\left(C_c+C_{gd1}+C_{gd5}+C_{gs5}+C_{o1}\right)+g_{m5}R_{o1}R_L\left(C_c+C_{gd5}\right)$,

$b_2=R_{o1}R_LC_L\left(C_c+C_{gd1}+C_{gd5}+C_{gs5}+C_{o1}\right)+R_{o1}R_LC_c\left(C_{gd1}+C_{gs5}+C_{o1}\right)+R_{o1}R_LC_{gd5}\left(C_{gd1}+C_{gs5}+C_{o1}\right)$.

Coefficients a_1 and b_1 both contain R_{o1}, R_L, C_c, C_{gd1}, C_{gd5}, and g_{m5}, and clearly cannot change independently to their extreme values as required by Kharitonov's method. The same can be said on coefficients a_0 and a_1 since they both are related to g_{m1}, g_{m5}, R_{o1} and R_L. The assumption of an independent coefficient makes the bounds

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calculated by Kharitonov's method very loose. Thus, in practical application, these bounds might be too conservative to be useful.

B. The Proposed Optimization Method

To resolve the dependency problem in Kharitonov's method, we propose the optimization method based on the Trust Region Reflective algorithm [10] to calculate the upper and lower bounds of magnitude and phase for the linear analog circuit. The basic concept of this optimization method will be briefly discussed. If you want to minimize one polynomial $f(x)$, suppose you are at a point x in n-space and you want to move to a point with a lower function value, i.e., move to a point with a lower function value. The basic idea is to approximate $f(x)$, with a simpler function q, which reasonably reflects the behavior of function $f(x)$ in a neighborhood N around the point x. This neighborhood is the trust region. A trial step s is computed by minimizing over N. This is the trust region subproblem as follows:

$$\min_s \{ q(s), s \in N \}.$$

The current point is updated to be $x=x+s$ if $f(x+s)<f(x)$; otherwise, the current point remains unchanged and trust region N, is shrunk and the trial step computation is repeated. The $f(x)$ can be minimized by repeating this procedure.

According to (2) and (3), the maximum and minimum value of the magnitude and phase of the interval transfer function can be calculated by the proposed method at each fixed frequency point. Therefore, the dependency problem limiting the application of Kharitonov's method is resolved.

C. Process Variations of CMOS Circuit

The coefficients in the transfer function of the analog circuit shown in (2) contain the circuit parameters. For example, in the transfer function (4), coefficients a_0 contains four circuit parameters g_{m1}, g_{m5}, R_{o1} and R_L. Furthermore, the circuit parameters are mainly affected by the process parameters and the geometry parameters. When the process and geometry parameters are varied, variations appear on circuit parameters. To estimate the variation range of circuit parameters affected by process and geometry parameters, we must know the relations between circuit parameters and process parameters. The general equation of each circuit parameter appears in the modified small signal model shown in Fig. 4, has been discussed in [11]. These equations are widely used in analog circuit designs. Therefore, it is believed that the accuracy is sufficient and acceptable in applying the general equation of each circuit parameter for the design purpose.

The significant process parameters, which will affect the performance bounds of the analog circuit, can be identified from the equation of each circuit parameter in the transfer function.

When the process variations are involved in the two-stage amplifier as shown in Fig. 1, the circuit parameters are affected by the following significant process parameters:

1) W: Channel width of M1, M2, M3, M4, M5, M6, M7, and M8.
2) L: Channel length of M1, M2, M3, M4, M5, M6, M7, and M8.
3) t_{ox}: Oxide thickness.
4) μ_n/μ_p: Carrier mobility of NMOS and PMOS.
5) λ_n/λ_p: Channel length modulation parameter of NMOS and PMOS.
6) C_j: Zero-bias bulk junction capacitance.
7) C_{jsw}: Zero-bias sidewalk bulk junction capacitance.

TABLE III
CIRCUIT PARAMETER VARIATION RANGE UNDER ±10% PROCESS VARIATIONS (10,000 MONTE CARLO SIMULATIONS)

Parameter	Nominal Value	Variation Range (%)
g_{m1}	83.29 μA/V	−11.78% ~ +11.75%
g_{m5}	544.91 μA/V	−32.53% ~ +25.39%
R_{o1}	1.44 MΩ	−12.21% ~ +15.45%
R_L	255.07 KΩ	−98.59% ~ +24.02%
C_{o1}	0.66 pF	−20.84% ~ +35.28%
C_L	5.22 pF	−0.61% ~ +1.84%
C_c	3 pF	−10.00% ~ +10.00%
C_{gs1}	212.18 fF	−25.96% ~ +31.66%
C_{gd1}	12.74 fF	−10.05% ~ +10.00%
C_{gs5}	493.89 fF	−24.51% ~ +31.68%
C_{gd5}	28.69 fF	−10.07% ~ +361.91%

Some process parameters have fixed values and are not affected by the process variations. The load capacitor C_{OL} is the input capacitor of another analog circuit. To mimic the input capacitor of another circuit, an off-chip capacitor is generally used, as it will not be affected by the process variations. The Miller capacitor C_c is implemented by an off-chip capacitor in the two-stage amplifier shown in Fig. 1. To consider the impact of circuit performance caused by C_c, we assume Miller capacitor C_c is varied by ±10% from their nominal values in the following experiments.

IV. EXPERIMENTAL RESULTS

The proposed method has been implemented in the Matlab programming language and run on an Intel machine with 3.16 GHz and 3.46 GB RAM on Windows XP. A CMOS two-stage amplifier was used to demonstrate the experimental results. All experimental results were carried out using a standard 0.35-μm CMOS process technology.

The schematic of the CMOS two-stage amplifier is shown in Fig. 1. All significant process parameters of the two-stage amplifier are varied by ±10% from their nominal values. To achieve the reasonable estimation of the performance bounds, 10,000 Monte Carlo simulations were performed. The variation range of circuit parameters for the modified model derived from the results of the 10,000 Monte Carlo simulations is shown in Table III. The circuit parameters varied up to +361.91% from their nominal values, when the significant process parameters varied by ±10% from their nominal values. The parasitic capacitors, C_{gs1}, C_{gd1}, C_{gs5}, and C_{gd5}, varied from −10.05% to +361.91%. Therefore, these parasitic capacitors are sensitive to the process variations and cannot be neglected.

Fig. 6 shows the performance bounds of the two-stage amplifier evaluated by different worst-case analysis approaches. As shown in Fig. 6, Kharitonov's method overestimates the bounds of magnitude and phase due to the dependency problems. The dependency problems limiting the application of Kharitonov's method have been resolved by the proposed method. The Monte Carlo method does provide a rough prediction of the maximum variation of magnitude and phase. However, at certain frequency points the prediction is

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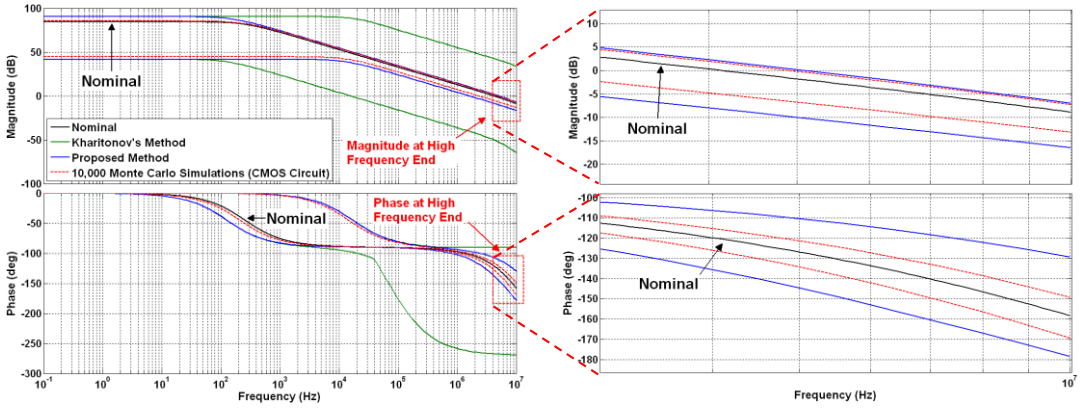

Fig. 6. The upper and lower bounds of magnitude and phase of the two-stage amplifier under ±10% process variations.

TABLE IV
COMPUTATION TIME OF DIFFERENT WORST CASE ANALYSIS APPROACHES

Worst Case Approach	Computation Time	Results
10,000 Monte Carlo Simulations	405.66 sec	Underestimated
100,000 Monte Carlo Simulations	4133.83 sec	Underestimated
Kharitonov's Method	0.35 sec	Overestimated
Proposed Method	19.56 sec	Accurate

still noticeably different from the real one which indicates the miss of the real bound. According to the definition of the proposed method, the solution of our formulation (3) will be the tight upper and lower bounds.

The computation time of different worst-case analysis approaches is shown in Table IV. Kharitonov's method is computationally efficient but leads to overestimated results. The proposed method took about 19.56 seconds, while Monte Carlo method took about 405.66 seconds for 10,000 simulation runs and 4133.83 seconds for 100,000 simulation runs, respectively. This is actually a small example, and for the large analog circuit, we expect orders of computation savings.

IV. CONCLUSION

This paper proposes a more efficient method based on optimization approach, to evaluate the linear analog circuit performance bounds under process variations. The bounds of the magnitude and phase can be calculated by formulating the circuit as interval transfer functions and solving the optimization problem at each fixed frequency point. The proposed method solves dependency problem limiting the application of Kharitonov's method. A CMOS two-stage amplifier was used to demonstrate the principle and significance of the proposed method. From the experimental results, the proposed method evaluates the bounds of the magnitude and phase accurately, with much less computation time compared with the Monte Carlo method.

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Creative Writing

Come at the world from a different angle, bringing readers along with you.

Narrative Writing

Chapter 1

My major in college was Creative Writing with a concentration in poetry, so I care about it at least a little. In creative writing, two things pique my interests: seeing the mundane from a slanted perspective, and creating beauty in the form of words.

I've also been working on novels in my spare time. It may not be the next "Great American Novel," but I am proud to have completed a 110,000+ word narrative from start to finish.

To view this excerpt and poetry excerpts online, see my website, linked here.

Chapter 1

For Taylor Aisling, Circadian Lag was the worst part of the job. First few days back to a Day rotation, always harder on the sleep cycle than going into a Delve rotation. That's why the company usually scheduled rotation changes to happen over a weekend. And for Taylor, it never failed to screw the whole weekend because even with the E-Lucid® and the drugs they gave him, his internal clock was completely out of whack. The low doses of Modafinil never did enough to make up for the fact that he was used to sleeping hard during the daytime. But if Taylor didn't stay awake the whole day, he'd never get back into the right rhythm.

It was only 9:00 AM, Monday after switching back to Day rotation. Taylor cradled his head in his hands, fingers over his eyes, elbows on his desk. The computer monitor light pierced between his fingers. He heaved a sigh, dragged his hands down his face, pulling on his pasty skin all the way. He could hear the scritch of his five o'clock shadow against his fingertips on the way to his thin, narrow jaw line. Taylor's face snapped back to place even in his slack jawed dazed state. He groaned, bleary eyed for a moment before taking a deep breath, straining to focus on the screen. The monitor had one document open. It said:

"EDMON SECURITY PRESENTATION—QUESTIONS TO ANSWER:

1. Re-state client problem ('you wanted to target this group to buy this product,' etc.).
2. What kinds of dreams will the ad be placed in?
3. How will the ad fit in the dreams?
4. What should the ad say or communicate to the target?
5. What feeling should the target feel at the moment the ad is placed?
6. What feeling/idea should the target remember after the dream is over?"

Taylor's eyes glazed over the questions. He already knew most of what to present to the client. He spoke with the team about it before the focus groups started. Taylor just didn't feel like writing anything down at the moment. It was always easier for Taylor to figure out a problem's solution in his head rather than putting anything into written words or creating actual ads. It's probably why he was so effective at designing E-Lucid® ad campaigns. No creating visuals or writing copy like in his old ad jobs. The target subconscious and the E-Lucid® did that for him. All he had to do was analyze the target market and figure out a strategy to meet them.

Taylor's eyelids drooped as he read the screen again, taking in all the questions and releasing back into his mind everything he learned from Delving target groups in answer.

Security didn't mean the protection from the things you fear, it meant the absence of fear entirely. Calmness, serenity, peace of mind, those were important to the customer. Taylor's head deposited its weight into his palm. His vision blurred, darkening and lighting as his eyelids crept lower and shot back open over and over.

Taylor opened his eyes and saw a beach scene on his monitor. Had he dozed off long enough for the screensaver to come up? But it wasn't his normal screensaver. He looked around, saw he and his entire desk were outside, actually on the beach. Seagulls made calls that would be obnoxious if close up. Waves broke against huge jagged stones far off. Taylor could tell they were somehow still dry. He looked back at his monitor, realized it was just a frame showing the distant ocean. He scanned his desk—almost all the normal tchotchkes and office supplies were replaced by beach things: shells, seaweed, rocks, et cetera. All except for the framed photo of his father holding the infant version of Taylor above his head.

Everyone smiled.

Taylor's toes squiggled in the sand below his desk. Maybe he should get up? But why bother? It was nice enough there. He reclined his chair. The casters sunk into the sand and the whole thing collapsed beneath him. The chair was gone and Taylor's body descended like a feather. When he touched the ground he saw two clouds, pink and orange, drift toward each other and crash in slow motion. The clouds' edges billowed out, roiling in the sky, but none of the colors ran together.

A faint voice called out from the distance. Taylor couldn't place who, but he could tell that she was calling for him.

"Mom?" he sent as the voice got closer and louder. No body came with the voice. It was loud now. Right next to his ear.

"TAYLOR," the voice, he thought he recognized it.

Taylor jerked out of sleep, arms and legs flailed around as his chair nearly toppled beneath him. Adrenaline shot through his system, his heart pumped loud and hard as he worked every muscle in a wild spastic dance to find his balance.

"Whoa, whoa whoa. You must have been pretty deep there. First day back is always rough, isn't it? That Circadian Lag can throw you for a loop." It was Diana Bolton, the Production Designer. She was the one calling him.

His entire circulatory system still flipping its lid, Taylor's eyes widened as he grasped at his keyboard and mouse. He jiggled and clicked the mouse to switch from the screensaver and typed a couple of random letters on the keyboard. It was no way to fool anyone into believing he had been working, but it was instinct after working in offices for 15 years to at least try.

Diana chortled, “Taylor, it’s alright, I don’t think anyone saw you...*dozing*,” She whispered the last word, accompanied by a little shifty-eyed mischievous look. “Anyway, we finished the focus group this morning and it looks like Franklin’s eating crow at this point. From what we saw in the tests, your direction was the more memorable of the two plans we were considering. People seemed to respond better to the sense of calm security rather than fear.”

“Well that’s good to hear,” Taylor nodded, eyes wide, focused on his monitor. He jiggled the mouse again and clicked around the questions document.

“Yeah, so I think it would be good if you were the one to take the lead on the client presentation since it was your dream direction that we’re going with. Of course, if you need any help with mood boards or collateral to show the client, I’d be happy to help,” Diana said.

Taylor gaped at her, “Th—Thanks, yeah, I’ll get right on that. When’s the due date for that again?” He cringed inside, thinking of having to lead any meeting, client or no. He led some past client presentations, but every one was a special type of nightmare. The last one, he bungled it by skipping over a major chunk of material in the middle. Went straight from the intro almost right to the end of the whole thing. It was only thanks to Franklin Donovan, the boisterous, blathery Account Executive, that the presentation wasn’t a complete travesty. Franklin saved Taylor’s bacon more than once with quick reactions and deft saves to his oratory missteps. Taylor did not want to have to go through that yet again. It frustrated Taylor when he was right about a dream campaign, it ended up shoving him in the spotlight. He was in the spotlight too often. Taylor’s leg was bouncing as he fingered the shirt button in the middle of his chest, absent from the conversation.

Diana’s lips were moving and there was noise, “...Does that work for you, Taylor?”

Deer in headlights, Taylor bobbed his head in a slow nod, “What did you say?”

“Are you alright? You must be really out of it today. I was telling you the date of the meeting,” She paused, “It’s Thursday at 10:00 AM. You sure you took enough wakers today?”

Most people in the company called Modafinil “wakers,” because who can remember medication names? Wakers were handy drugs to have, a full dose would keep you alert the whole day, almost no matter what. Not the frantic kind of alert you got from Adderall or amphetamines, either. It was smooth and focused. But the company never gave full doses. They didn’t want to get employees addicted and they thought E-Lucid® would help enough to make up for it. Like a trained idiot, Taylor forgot to take his wakers today.

It was obvious to Diana that Taylor had some sort of problem. She said, “Taylor, is everything OK?”

“You sure we can’t just have Franklin do it? He’s so much better. Every time I do client presentations I ruin them. The guy’s going to have to step in at some point anyway, he almost always does,” Taylor glowered.

“Oh hey, it’ll be alright, you’ll do fine,” Diana softened her voice, a placid tone, “Tell you what, if you want, we can go over the presentation together on Thursday morning before the internal practice session and I can give you some pointers, if you even need any.”

“Thanks for the offer, but I don’t want to waste your time and I think I can work it out myself,” He did not think he could work it out himself.

Thursday afternoon, it was just before the client pitch meeting. Taylor paced about the conference room with note cards clutched in hand. He was mumbling below his breath, practicing again. Internal practice presentation was decent, only a few stammers here and there, but that was just in front of his coworkers. With his remaining nerves from the practice session and anticipation of failure in front of clients, adrenaline darted around his bloodstream. At least it was cold in the office so he wasn’t sweating on top of all this. Diana came into the conference room with a Caffeine Free Diet Coke in hand. She looked Taylor up and down, then gave him a calm, warm look.

“You did fine earlier with us, don’t worry about it. If you stumble, Franklin or I can step in to help. That’s part of why we always have a team for these pitches,” she shrugged and smiled. The soda in the can made little “plunk” sounds as she waved her hand around, “Besides, you know this material. You spent a month researching the target market and figuring out our plan of attack. If anyone should present, it’s you.”

Minutes later, Franklin Donovan sauntered in, a burst of laughter following behind him. It came from the clients. He was bantering with them, completely relaxed by all appearances. Taylor marveled at his ease with these strangers. It grated his nerves to sense Franklin’s obvious confidence. It oozed from the man, infecting most around him with admiration. He wondered what it took to become like that. How did someone become confident? He had heard “fake it ‘til you make it” a hundred times in self-help seminars and clickbait videos, he couldn’t believe it was as simple as that. And he couldn’t believe that Franklin faked anything.

“So Jackson, Mike, I want to introduce the dream team! This is Diana Bolton, the Production Designer. She’ll be the one actually programming algorithms so the dream ads work right,” Franklin gestured to Aisling, “And this is Aisli—er, Taylor Aisling, our Dream Designer. He’ll be designing the dream ads’ overall mood and concepts, making sure everything fits with the right feel for the target. It’s a real delicate balance, you know!” Franklin clapped him on the

back, flinging Aisling's head back as his chest heaved forward. "Team, this is Jackson Edmon and Mike Pearson from Edmon Security. Let's show 'em what we got!"

Everyone smiled. Taylor's lips squared to show his teeth in an awkward display.

They all shook hands, exchanged pleasantries. Everyone but Taylor sat down. He dimmed the lights and a projection lit up the wall. The ambient projection light brightened the clients' and his team's faces. Franklin and Diana were sitting behind Jackson and Mike at the conference table. Franklin gave Aisling an encouraging nod with a double thumbs-up. He took a deep breath, his pulse pounding hard enough for him to feel his eyeballs push out a little with each beat.

"You sell fear. Fear of the break-in, of losing all your stuff to some burglar. Fear of getting hurt in your own home, Dying in a fire, any sort of catastrophic event blasting their home off the face of the planet, et cetera, you tell people that you can protect them from what they fear," Taylor paused for a moment. The clients squirmed in their chairs and shifted their eyes as he continued, "For a generation, your company—and every other company in the home security industry—has sold fear to people, telling them that you were the only solution. But sales of new systems have been stagnant over the past five years. We think it's because you've already hit the limit on the kind of people driven by fear. New home purchases have been declining, and those who own their home either already have a security system, or they're not driven by fear to buy one," Taylor saw Diana jerking her head to the right, a panicked but stern glare on her face. Taylor paused for a moment, not understanding what she was doing.

"Th—these are the people we have to reach. And we have to reach them in a different way than threatening them to get Edmon Security systems installed, 'or else.' Our market research and extensive Delving research over the past month has brought us to the conclusion that we need to appeal to a different need than simply assuaging fear. Look at Maslow's hierarchy of needs. This is a representation of what motivates human behavior on a grand scale," as he said this, Taylor clicked the remote presentation clicker to advance to the next slide in the projection. A bar graph of Edmon Security's declining year over year sales figures popped up on screen. He had forgotten to click over to the next slide for the past three slides. Taylor felt an exodus of blood from his head, his guts dropped and swirled in his belly. This kind of stupidity was exactly what he was expecting from himself. Taylor advanced the slide again. Graphics of home purchase data. How long had he not clicked? Was it on the title screen the whole time? He was in a corporate nightmare of his own making. Sure, screw up the presentation on a major potential account. He clicked again. A pyramid with four horizontal trapezoidal cutouts and one little triangle at the top appeared, reading from bottom to top:

Physiological (food, water), Safety, Love/belonging, Esteem, Self-actualization. Safety was emphasized. Finally back on track.

"Uh, sorry folks, I guess I got ahead of myself, heh," Taylor made a pathetic titter. He was sweating now, a thin layer seemed to hover across his back. He continued, his voice shaky, "Th—the um, the base is, uh...The base is physiological, sure, but we're not interested in filling that need. Your target market already has that taken care of. We want the customer to be filled up to the brim of this pyramid. We want the customer to feel true happiness and comfort," Taylor clicked to the next slide. Not making that mistake again. "And *you* can be the foundation of that contentment.

"This generation of home buyers is the most discontented, disaffected generation in a hundred years, for a number of reasons that we can't change here. But through their dreams, we can make them feel that contentment is real, it's possible, and it only happens when you are safe. I think I'll leave it to Diana to talk about the technical aspects of making this happen."

Diana got up and walked up to Taylor, facing Edmon and Pearson. Taylor handed her the clicker. She whispered to him, "It's fine, I'm sure it's fine."

Turning to the clients, she projected, "Thanks, Taylor, I'll take it from here."

Taylor nodded and made his way to his seat. He tried to regulate his breathing to make himself seem calmer than the tempest of anxiety he was. A wash of relief came over him as he sat down next to Franklin. No more talking, thank God.

Diana clicked to the next slide and said, "As you know, with the technology of E-Lucid®, we can tap into the dreams of our customers and give them the unconscious experiences they choose. Since all the ads we place are done in an opt-in basis, these customers are already more open to unconscious ad suggestions.

"What we'll do for your campaign is target the customers who set their preferred dream experiences to the key categories of Recreation, Chill, Healing, and Zen. These customers tend to feel the need to relax and have calm dreams. They're looking for contentment and fulfilment. In the dream, the target will inevitably have a moment of calm, happiness, or feeling safe. Our algorithms and neurochemical measuring systems in the E-Lucid® will be able to tell when they feel these feelings. When those moments come, we'll have the name drop. Either your logo, name, or a tagline, some other branded material from Edmon Security will be programmed into the unconscious, in the target's dream.

"Last week, we finished a focus group examining the difference in the effectiveness of this type of campaign over one where we attempted to scare targets into using Edmon Security," Diana clicked to another slide. From the tests we did, 80% of the targets remembered

your company's brand collateral from dreams where they were calm and content, and only 30% of targets even remembered seeing Edmon in dreams where they were met with a threat that Edmon 'solved' in the dream. On top of that, 75% of the people who remembered your company in calm dreams said they were more likely to use Edmon Security systems in their home after their experience in the dream. In fear-based dreams, only 33% of people who remembered the company's appearance in their dream said they would be more likely to use your systems. All that means overall, 60% of people who saw an ad for Edmon in a calm dream were more likely to become your customers. Only 10% of people who encountered ads in scarier dreams were likely to become customers. We think these numbers speak for themselves."

Diana clicked to the last slide. She stood, smiling at the Edmon and Pearson. Franklin got up and turned on the lights in the room.

With a toothy grin he asked, "Any questions, fellas?"

Edmon reclined in his chair, his eyebrows raised. He filled his lungs and blew between puckered lips. Edmon scratched his head. A frown expanded across Pearson's face as he leaned forward in his chair, depositing an elbow on the table.

Pearson said, "I don't see much difference between what we do right now and what you're suggesting. We offer people peace of mind and security, and you're saying you'll do the same thing. How is that any different?" He glowered.

Diana popped in, "The difference is the emotional state of the client when they see your ad. Working in the unconscious, working in dreams is completely different from working in print or online. You have to wait to place the ad in the right moment *on the chemical level.* It's much more targeted. You don't want to show an ad at just any time in any dream."

Pearson scratched his chin and looked beyond the floor, saying, "I'm not sure I like the idea of doing something so different from our current marketing strategy. I don't see how this is going to be beneficial enough to justify the change in direction, not to mention the cost."

Diana didn't miss a beat, "We currently have 20 million customers who use E-Lucid® on a nightly basis. Of those 20 million, 70% use the ad-sponsored subscription, and of that group, at least 45% choose dreams in the categories we discussed earlier. That ends up being almost 6.5 million people, and with 60% of them seeing your ad and being more likely to use your product, it ends up being well over 3.5 million potential new customers. The numbers are measurable and undeniable. E-Lucid® advertising works on the unconscious level, where we are most susceptible to impression—"

Pearson retorted, "Sure, the numbers seem impressive, but this campaign you're suggesting, it flies in the face of what our message to the customer has been for years.

‘Happiness can be yours, but only if you use us?’ Seems like a bit of a stretch there. Nobody will believe that.”

They were on the fence and leaning to the “no” side. Taylor could tell it was mostly Pearson. No marketing guy ever wants to have the rug pulled out from under them like this. While Pearson and Diana went back and forth, Taylor studied Jackson Edmon. The man watched the debate, head shaking back and forth like he was at Wimbledon. He was more enrapt with their oratory tennis match than the decision at hand. The guy said hardly a word the entire meeting, just sat there, leaning back and observing. By his body language, he seemed almost flippant compared with Pearson. Taylor figured that Edmon relied too strongly on Pearson for decision making. For some reason, Franklin wasn’t doing anything to help. He probably figured the numbers would do the talking for them, but Diana’s numbers weren’t getting through Pearson’s defenses. Taylor had to cut out the middleman and go straight for the head.

Taylor closed his eyes, started in, “You ever had a dream that you knew intellectually, even in the dream, what was happening couldn’t possibly be real? But it still *felt* real when you were in it. Your brain convinced itself to experience these events, that it’s all true. You ever had a dream that made you question a decision you made in real life? That’s what happens here. People respond to these ads because they come from their own head. To the dreamer, nobody is telling them to buy, they’re telling themselves.

“Just like you, Mr. Edmon,” Taylor turned and peered directly into Edmon’s eyes. His pulse rising again, Taylor could feel his stomach tie in knots as he continued, “Nobody needs to tell you to go with Somnica on this campaign. You’ve already made the decision. Why even come to us in the first place if you weren’t looking for something new and completely different? We’re the only ones who do this, and this is what we do.”

The conference room fell silent, pin drop style. Franklin glanced between Taylor and Edmon, trying to gauge his response. Pearson shot daggers at Taylor. Diana’s shoulders dropped and her head tilted. Taylor held eye contact, focusing as his natural impulse tore at him to pull his eyes away. After what seemed to Taylor like a short eternity, the air conditioning turned on, humming from the vents in the ceiling.

This seemed to jog Edmon into action. He raised his eyebrows, nonplussed. A slow smile crept across his face as he shook his head, “Well, when you’re right, you’re right. We’ve gotta go with something new. I think it’s a good plan, especially if those numbers hold up.”

Pearson's jaw dropped. Taylor and Pearson both gaped at Edmon. It had worked? He just sealed the deal with a client? This hadn't happened before. His coworkers looked on, nodding and wide-eyed. Franklin flashed his teeth, grinning ear to ear.

Edmon stood, and everyone else followed suit, "Mr. Aisling, I look forward to our companies having a profitable partnership," He enveloped Taylor's cold skinny fingers in his. It felt like shaking hands with a tree trunk.

As the clients chattered with Franklin discussing deal specifics, implementation plans, and deadlines, Taylor worked to calm his nerves from the massive adrenaline waves he received for the past thirty minutes. He stared off into the distance and rubbed the middle button of his dress shirt, trying to empty his mind. He couldn't get over his own brashness in the meeting. It was uncalled for and was too much of a risk. He could have bungled the whole thing. He could have lost the client. But it worked, didn't it?