

## Key Insights (Top 10 Features ordered by highest contribution to Churn as per Feature Importance output)

### 1. Contract\_Month-to-month

- **Insight:** Customers with month-to-month contracts are more likely to churn compared to those with longer-term contracts (e.g., one-year or two-year contracts).
  - **Significance:** Month-to-month contracts lack long-term commitment, making it easier for customers to switch providers. This indicates dissatisfaction or a lack of perceived value.
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### 2. Tenure

- **Insight:** Customers with low tenure (i.e., those who have been with the company for a shorter duration) are more prone to churn.
  - **Significance:** Newer customers might leave due to unmet expectations, inadequate onboarding, or better offers from competitors. Improving the onboarding experience and offering loyalty incentives can help reduce churn among new customers.
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### 3. TotalCharges

- **Insight:** High total charges correlate with higher churn.
  - **Significance:** Customers with high accumulated charges may feel they are overpaying, especially if they don't perceive enough value. Offering loyalty discounts or better pricing for long-term customers can address this issue.
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### 4. OnlineSecurity\_No

- **Insight:** Customers without online security services are more likely to churn.
  - **Significance:** Lack of online security might make customers feel vulnerable or that they are not getting a comprehensive service package. Promoting bundled plans that include security features can improve retention.
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### 5. TechSupport\_No

- **Insight:** Customers without tech support are at higher risk of churning.

- **Significance:** Lack of technical support might lead to dissatisfaction when customers face service issues. This highlights the importance of accessible and reliable customer support.
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## 6. InternetService\_Fiber optic

- **Insight:** Customers using fiber-optic services are more likely to churn than those on DSL.
  - **Significance:** While fiber optics offer higher speed, customers may churn if their expectations for reliability, pricing, or service quality are not met. This points to the need for maintaining high-quality service and managing customer expectations.
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## 7. PaymentMethod\_Electronic check

- **Insight:** Customers who pay via electronic check are more likely to churn.
  - **Significance:** This could indicate dissatisfaction with the payment process or demographic tendencies. Offering modern, convenient payment options like credit cards or digital wallets may help retain these customers.
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## 8. MonthlyCharges

- **Insight:** High monthly charges contribute significantly to churn.
  - **Significance:** Customers paying higher monthly fees might feel the cost outweighs the value of the service. Offering tailored discounts or flexible payment options can reduce this concern.
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## 9. Contract\_Two year

- **Insight:** Customers on two-year contracts are less likely to churn compared to those on shorter-term contracts.
  - **Significance:** Longer contracts create customer stickiness and reduce the likelihood of churn. Offering incentives for customers to switch to two-year contracts can improve retention.
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## 10. InternetService\_DSL

- **Insight:** Customers with DSL internet services show lower churn rates compared to fiber-optic users.
  - **Significance:** DSL customers might have lower expectations and be more satisfied with basic services. Transitioning DSL customers to better services with appropriate communication can minimize churn when upgrading them.
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## Business Recommendations:

### Business Recommendations for Reducing Churn

1. **Promote Long-Term Contracts:**
  - Since customers on **month-to-month contracts** are more likely to churn, incentivize them to switch to longer-term contracts (e.g., one or two years) by offering discounts or additional benefits.
2. **Improve First-Year Retention:**
  - Customers with **low tenure** (new customers) are at a higher risk of churn. Implement a structured onboarding process, exclusive perks, and loyalty programs to retain new customers in their early months.
3. **Enhance Customer Support and Online Security:**
  - A lack of **Tech Support** and **Online Security** services contributes to churn. Invest in customer support services and educate customers on the value of additional security features. Bundle these features into service plans to boost adoption.
4. **Address High Monthly and Total Charges:**
  - **High MonthlyCharges** and **TotalCharges** are strong churn predictors. Offer customized discounts, bundle packages, or loyalty rewards for long-term customers who face price sensitivity.
5. **Optimize for Digital Payments:**
  - Customers using **Electronic checks** as a payment method may face inconvenience. Promote easier and more modern payment methods like credit cards, automatic payments, or digital wallets.
6. **Leverage Fiber-Optic Service Quality:**
  - While **fiber-optic service** is a key offering, customers might have expectations for reliability. Conduct regular service quality checks and ensure high-speed connectivity to satisfy these users.
7. **Target DSL and Senior Customers:**
  - **DSL users** might perceive service limitations, so gradually transition them to better technologies like fiber optics. Provide specialized plans for **SeniorCitizen** customers that cater to their specific needs.
8. **Encourage Paperless Billing:**

- As **PaperlessBilling\_Yes** appears in the chart, communicate its benefits (e.g., convenience and eco-friendliness) to improve adoption and reduce dissatisfaction.

9. **Add Value to Streaming Services:**

- Customers without **StreamingTV** or **StreamingMovies** are less engaged. Include these services in bundled plans or offer free trials to increase usage and satisfaction.