

Get started with Ansible Automation Platform's generative AI service

Red Hat® Ansible Lightspeed with IBM® watsonx Code Assistant is a generative AI service engineered to help you create, adopt, and maintain Ansible content more efficiently. Whether you're new to Ansible or an experienced expert, Ansible Lightspeed can turbocharge your Ansible network automation content creation workflows while helping you maintain your existing Ansible code with features like Ansible code bot.

In this session, you'll learn how to get started with trusted generative AI, and learn the benefits of using an Ansible-trained LLM to build and maintain network automation playbooks.



The bridge to possible

Get started with Ansible Automation Platform's generative AI service

Sean Cavanaugh

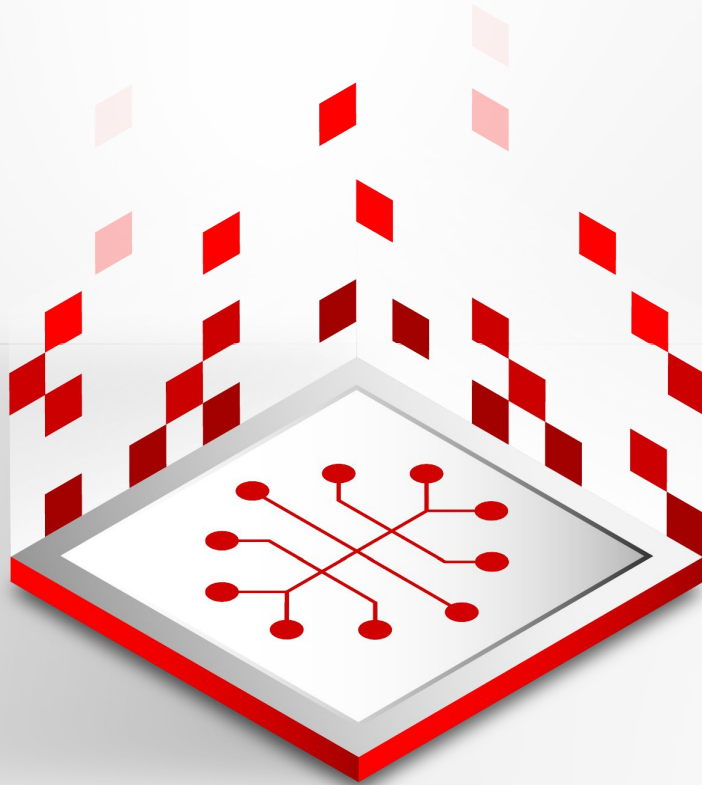
Sr. Principal Technical Marketing Manager

@IPvSean

CISCO *Live!*

#CiscoLive

A decorative graphic in the bottom right corner consisting of a series of overlapping, elongated oval shapes. The colors transition from dark red on the left to bright yellow on the right, creating a sense of depth and movement.



Better code is the key to
unlocking automation
acceleration

Code that **scales across domains**

Code that **meets the varied
needs of the teams using it**

Code that **trusted and well
maintained**



Red Hat Ansible Lightspeed with IBM watsonx Code Assistant

The developer interface

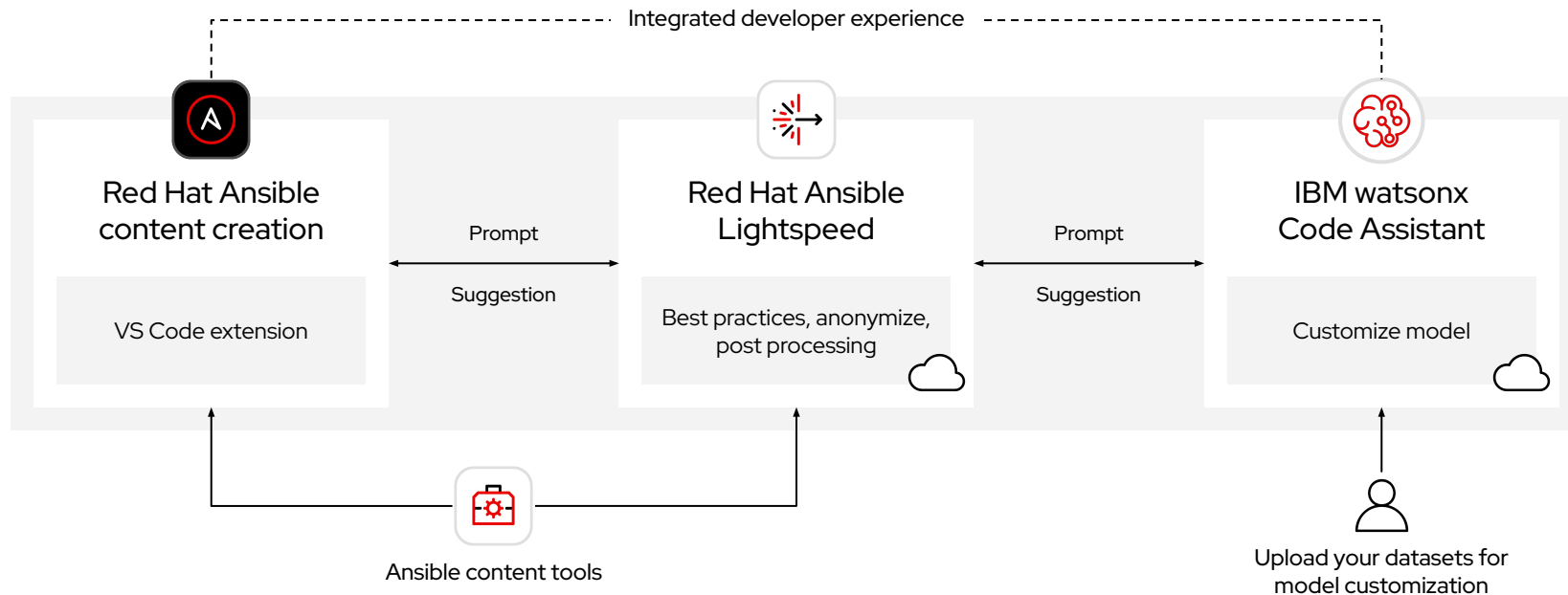
Deployed natively in Visual Studio Code via the Ansible VS Code extension

The integrated service

Integration of AI services into Ansible Automation Platform via the Ansible VS Code extension

The generative AI

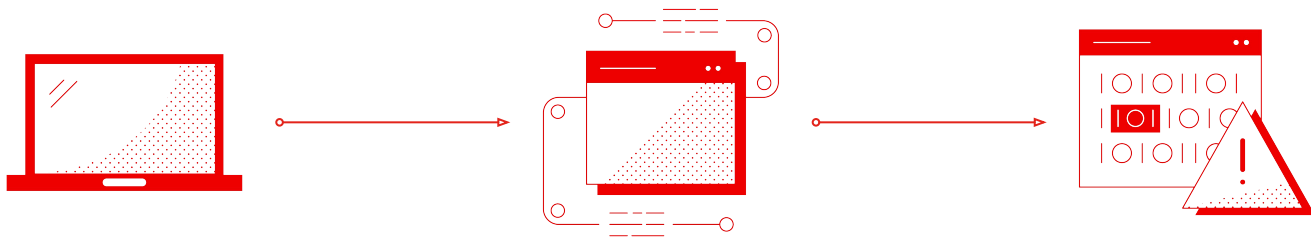
IBM watsonx Code Assistant powered by the Ansible-specific watsonx.ai foundation model.



Data security

- + Prompt/suggestion data is encrypted in transit and at rest, and is ephemeral
- + Customer metadata and customized models are stored in customer-owned IBM cloud object storage and are not shared with IBM, Red Hat, or any other customers

The automation code life cycle



Create

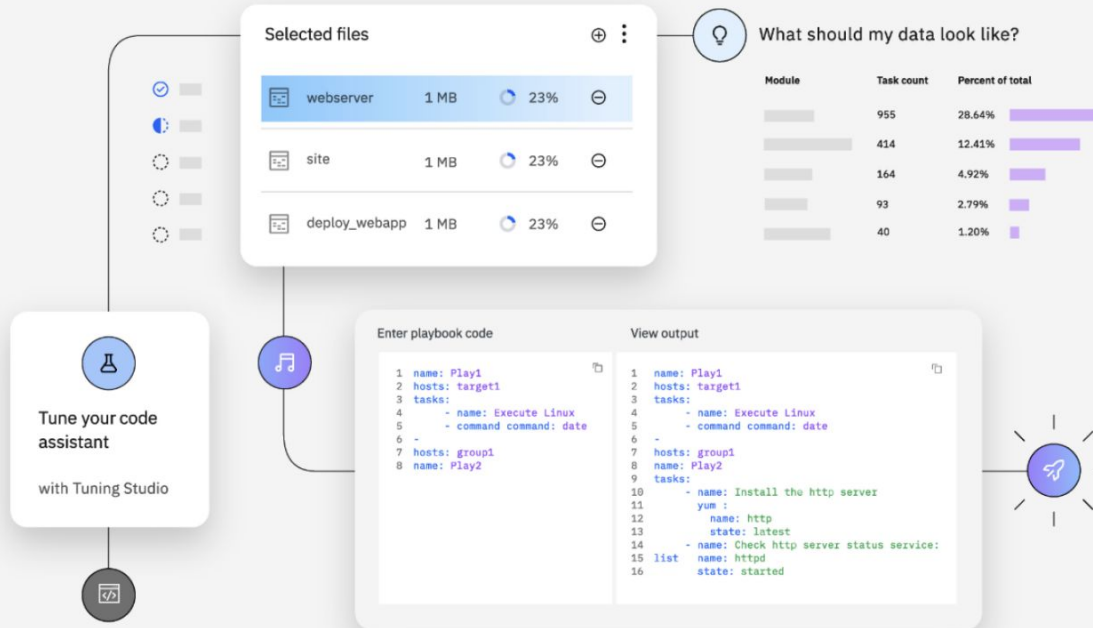
Multi-task generation
Model customization / tuning
Foundational model for Ansible
Full playbook generation (June)

Adopt

Content source matching
Post-processing capabilities

Maintain

Ansible code bot
Admin dashboard



Create

Foundational model for Ansible

- + 3B parameter IBM watsonx Granite foundation model, trained on Ansible datasets, and infused with IBM and Red Hat automation expertise
- + Customer data is isolated to their IBM Cloud account

Training dataset creation

```

● (ansible-venv) → Ansible-OpenShift-Provisioning git:(main) ansible-content-parser https://github.com/IBM/Ansible-OpenShift-Provisioning.git /tmp/out2/ --skip-ansible-lint
INFO:pipeline:Running data pipeline
INFO:pipeline:Start scanning for 1 projects (total 269 files)
INFO:pipeline:Done
● (ansible-venv) → Ansible-OpenShift-Provisioning git:(main) ls /tmp/out2
ftdata.jsonl metadata report.txt repository
● (ansible-venv) → Ansible-OpenShift-Provisioning git:(main) ansible-content-parser . /tmp/out3/ --skip-ansible-lint
INFO:pipeline:Running data pipeline
INFO:pipeline:Start scanning for 1 projects (total 269 files)
INFO:pipeline:Done
○ (ansible-venv) → Ansible-OpenShift-Provisioning git:(main) █

```

Model training

Tune a model

Provide the name and description of your tuning experiment. You can configure your tuned model within the experiment in the next step.

Define details

The base code model you are going to tune

IBM base code model for Ansible ⓘ

Tuning experiment name

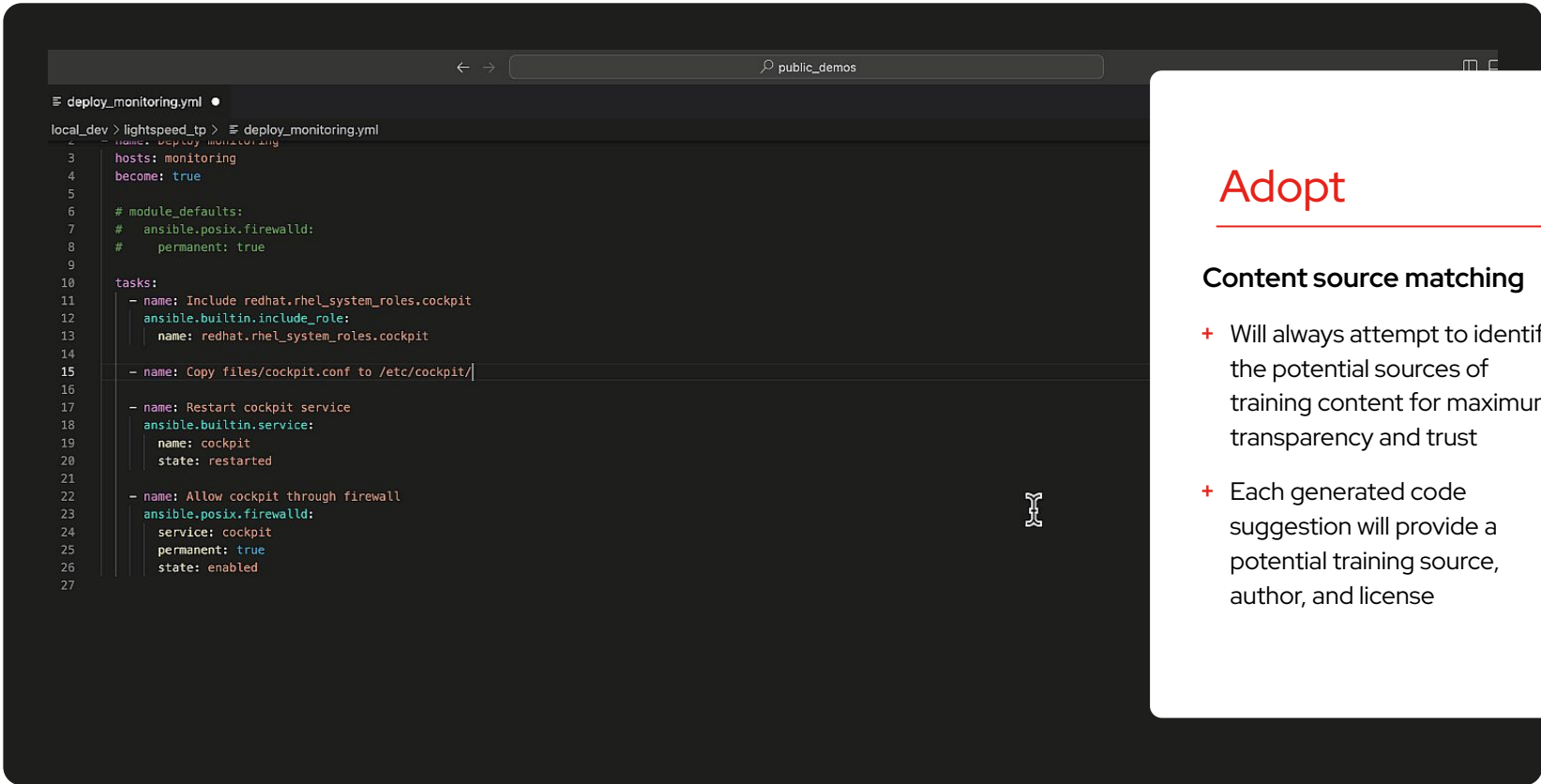
Description (optional)

What's the purpose of this tuning experiment?

Create

Model customization / fine tuning

- + Allows Ansible Lightspeed users to leverage their existing Ansible content to train the model.
- + Code recommendations are tailored to the organizations' specific needs and automation patterns.

A terminal window with a dark background. The title bar shows a search icon, the text 'public_demos', and window control icons. The terminal content shows an Ansible playbook named 'deploy_monitoring.yml' being edited. The first task is 'Include redhat.rhel_system_roles.cockpit'. The second task is 'Copy files/cockpit.conf to /etc/cockpit/'. The third task is 'Restart cockpit service'. The fourth task is 'Allow cockpit through firewall'. The terminal prompt is 'local_dev > lightspeed_tp >'.

```
< → public_demos  
≡ deploy_monitoring.yml ●  
local_dev > lightspeed_tp > ≡ deploy_monitoring.yml  
1  name: deploy_monitoring  
2  
3  hosts: monitoring  
4  become: true  
5  
6  # module_defaults:  
7  #   ansible.posix.firewalld:  
8  #     permanent: true  
9  
10 tasks:  
11 - name: Include redhat.rhel_system_roles.cockpit  
12   ansible.builtin.include_role:  
13     name: redhat.rhel_system_roles.cockpit  
14  
15 - name: Copy files/cockpit.conf to /etc/cockpit/  
16  
17 - name: Restart cockpit service  
18   ansible.builtin.service:  
19     name: cockpit  
20     state: restarted  
21  
22 - name: Allow cockpit through firewall  
23   ansible.posix.firewalld:  
24     service: cockpit  
25     permanent: true  
26     state: enabled  
27
```

Adopt

Content source matching

- + Will always attempt to identify the potential sources of training content for maximum transparency and trust
- + Each generated code suggestion will provide a potential training source, author, and license

≡ deploy_monitoring.yml ×

local_dev > lightspeed_tp > ≡ deploy_monitoring.yml

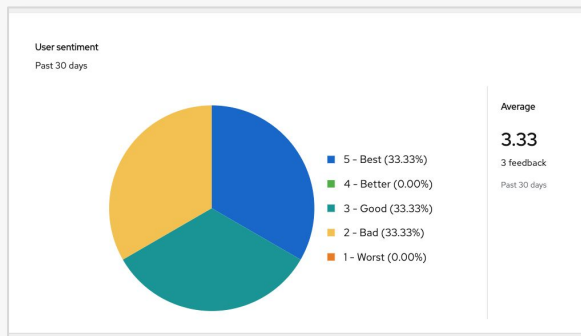
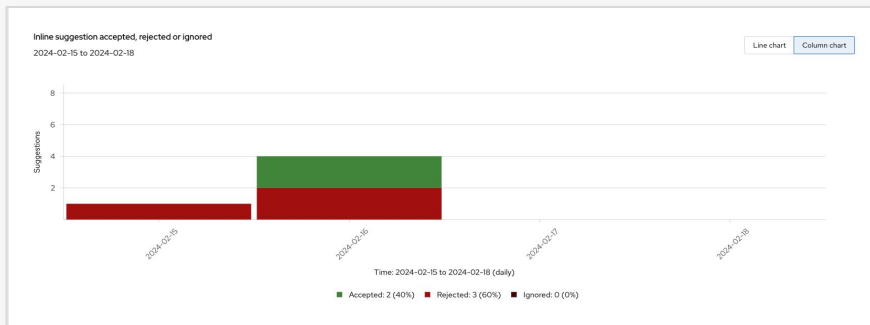
```
1  ---
2  - name: Deploy monitoring
3    hosts: monitoring
4    become: true
5
6    # module_defaults:
7    #   ansible.posix.firewalld:
8    #     permanent: true
9
10   tasks:
11     # - name: Include redhat.rhel_system_roles.cockpit
12
13     # - name: Copy files/cockpit.conf to /etc/cockpit/
14
15     # - name: Restart cockpit service
16
17     # - name: Allow cockpit through firewall
```



Adopt

Post-processing capabilities

- + Augments model suggestions with Ansible best practices, subject matter expertise, and more
- + This processing and strong contextual awareness stems from Red Hat's unique expertise and insight into the Ansible code base to help accelerate automation at scale.



Top 10 modules returned in code recommendations
2024-02-18 to 2024-02-18

Top 10 out of total modules used 77%

Module name	Returned
ansible.builtin.package	99 (9.26%)
ansible.posix.authorized_key	67 (3.04%)
ansible.builtin.set_fact	59 (1.48%)
ansible.builtin.template	45 (8.75%)
ansible.builtin.command	29 (5.64%)
ansible.builtin.copy	24 (4.67%)
ansible.builtin.service	23 (4.47%)
ansible.posix.firewall	18 (3.32%)
amazon.aws.ec2_instance_info	16 (3.03%)
ansible.builtin.user	14 (2.72%)

Maintain

Administrative dashboard

- + Monitoring metrics and usage reporting
- + Understand usage patterns across organization
- + Gain insights to ensure successful adoption
- + Accessed in the Red Hat Hybrid Cloud Console

The screenshot shows the GitHub repository page for `network.bgp`, which is forked from `amugqaad/network.bgp`. The repository is in the `main` branch, which is 5 commits ahead and 2 commits behind the upstream. The file list includes:

File	Description	Last Commit
<code>.github</code>	Update ansible-code-bot.yml	last week
<code>changelogs</code>	Update actions to operations	4 months ago
<code>meta</code>	Prepare Release 1.1.0	last year
<code>plugins/filter</code>	Update dire structure	7 months ago
<code>roles/run</code>	Update actions to operations	4 months ago
<code>tests/bgp</code>	Update tests	5 months ago
<code>.ansible-lint.yml</code>	Create .ansible-lint.yml	3 months ago
<code>.gitignore</code>	update github workflow	last year
<code>.pre-commit-config.yaml</code>	Fix linting issues	6 months ago
<code>.prettiignore</code>	update github workflow	last year
<code>.yamllint</code>	Fix linting issues	6 months ago
<code>CHANGELOG.md</code>	Prepare release 3.0.0	5 months ago
<code>LICENSE</code>	Initial commit	last year
<code>README.md</code>	Update README.md	last week
<code>bindip.txt</code>	update github workflow	last year
<code>ospi.config.yaml</code>	Update ansible-lint fixtures	last year
<code>galaxy.yml</code>	Prepare release 3.0.0	5 months ago
<code>pyproject.toml</code>	update github workflow	last year
<code>requirements.txt</code>	update github workflow	last year
<code>test-requirements.txt</code>	update github workflow	last year
<code>tox.ini</code>	update github workflow	last year

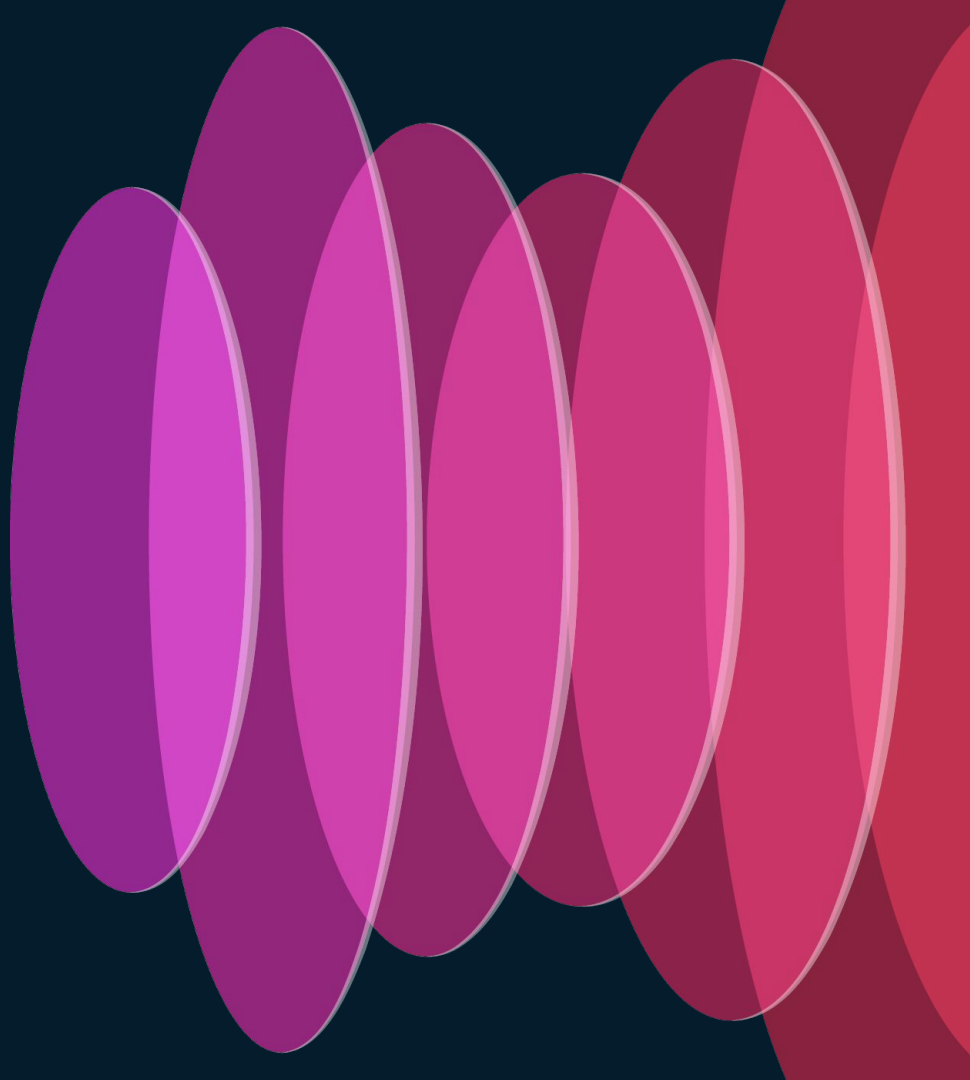
The repository also includes a sidebar with information about the repository, including a description, a README link, a license (GPL-3.0), and a list of releases and packages.

Maintain

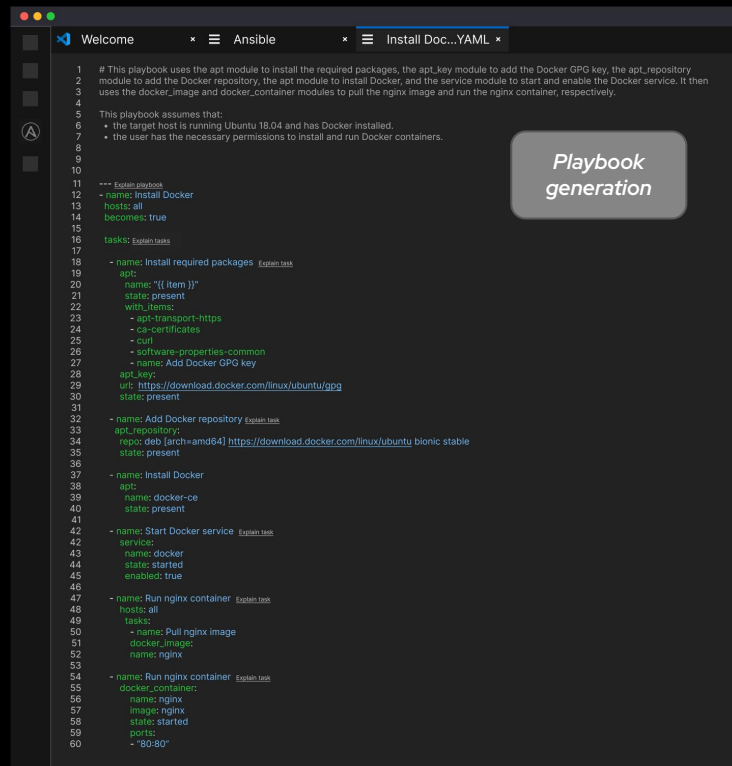
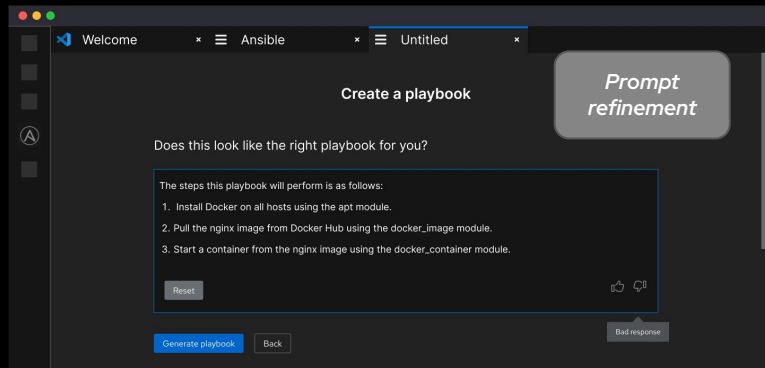
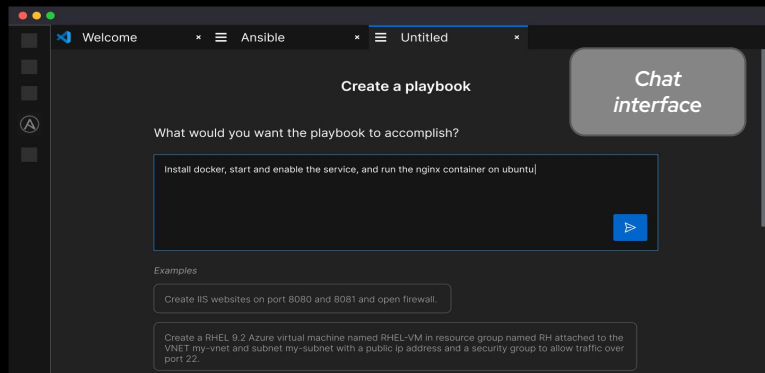
Ansible code bot

- + Integrates natively with user-selected Git repos, scans existing Ansible content, and automatically submits pull requests with code improvement recommendations
- + Makes it easier for teams to review, test, and apply improvements to the automation code base

Demo



Full Playbook Generation (June)



Product Roadmap

Now

Multi-task generation

Generate multiple related tasks from a single prompt to create full playbooks

Content monitoring and improvement

Monitor Ansible content repositories for improvements and receive automatic pull requests

Model fine tuning

Use watsonx Code Assistant to create custom Ansible recommendation models

Near term (late June)

Full playbook generation

Interactive interface(s) that allow for better automation generation

On-premise deployment

For organizations with air-gapped environments



Long term

Content discovery

Find existing Ansible content instead of writing from scratch

Content description

Generate descriptive documentation about the automation you build

Content controls

Specific controls around data sent to Ansible Lightspeed

New user interfaces

Web-based, CLI, and other code editors

Custom post-processing

Parse unstructured data into structures

Rulebook recommendations

Support recommendations for Event-Driven Ansible

Pricing plans

Get started for free with the Lite Plan and see how you can accelerate Ansible Playbook creation with generative AI-powered content recommendations. Explore the pricing plans for IBM watsonx™ Code Assistant for Red Hat® Ansible Lightspeed.

Only pay for what you use with consumption-based pricing available in all plans.

Lite Free trial

Try watsonx Code Assistant for Red Hat Ansible Lightspeed for free with limited capacity of task prompts. No credit card required.

- Requires entitlement to the Red Hat Ansible Automation Platform.
- Explore AI-assisted generated content recommendations from natural language input.
- Provides approximately 200 Ansible task prompts at no cost.

Essentials Pay for what you use

Enhance productivity and drive greater operational efficiency for IT operations and development teams.

- No monthly instance fee for unlimited number of users.
- Only pay for what you use.
- Starting at approximately USD 2 per 20 Ansible task prompts.

Featured

Standard For Enterprise Users starting at USD 1,200 per month

- Includes approximately 13,200 Ansible task prompts per month for unlimited number of users.
- Approximately USD 2 per additional 20 Ansible task prompts.
- Customize the base foundation model with your organization's Ansible content for enhanced recommendations. Tuning available at USD 500 per hour.



The bridge to possible

Get Started with Red Hat Ansible Lightspeed



Explore IBM watsonx Code Assistant

red.ht/WCAforAnsible

Activate Ansible Lightspeed for watsonx Code Assistant

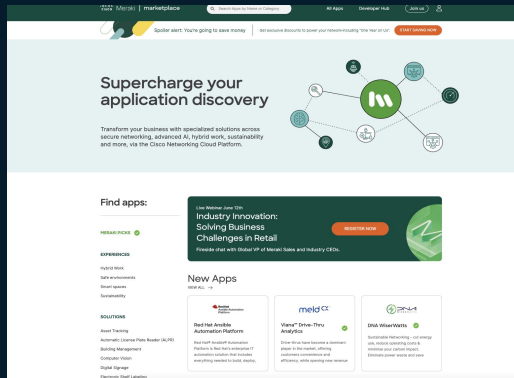
red.ht/lightspeed-get-started

Session ID

Call to action

Harness the power of APIs and ecosystem partners in your business outcomes

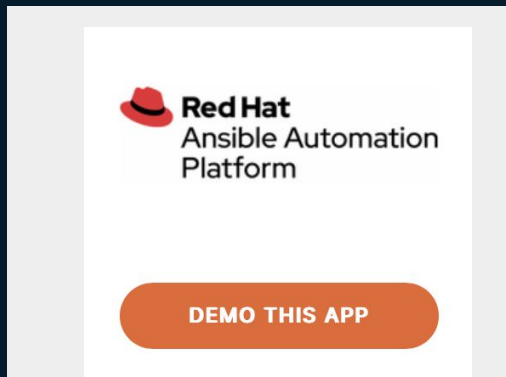
1



Explore the marketplace

<https://apps.meraki.io/>

2



Request a demo

3



Connect with your Cisco
account team



The bridge to possible

Thank you

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#CiscoLive

Yes

Which tools?

Co-pilot ⇒
EA

Github
Copilot

Chat GPT

Cisco AI
Assistant

Google
Gemini

Claude

ISE

Profiling

(meta ai)
Llama

Each dev member
have copilot
subscriptions to
make the process
faster

Internal chat
Interface
built on
Azure Cloud
AI

MISPrai
AI

Light weight

POC → save
time
Wish to use it
more

Microsoft
Co Pilot

AI
CRM

IBM Watson

Network GPT

To teach me
to develop SW

Catalyst
center
AI

Generating
SAPPORT

No

Why not?

On the
list to
learn / check out

No application

Research in
progress

No internal
push or
encouragement

Do it
all by
myself

more u
can help
understand
capabilities
customers
requirements
meraki

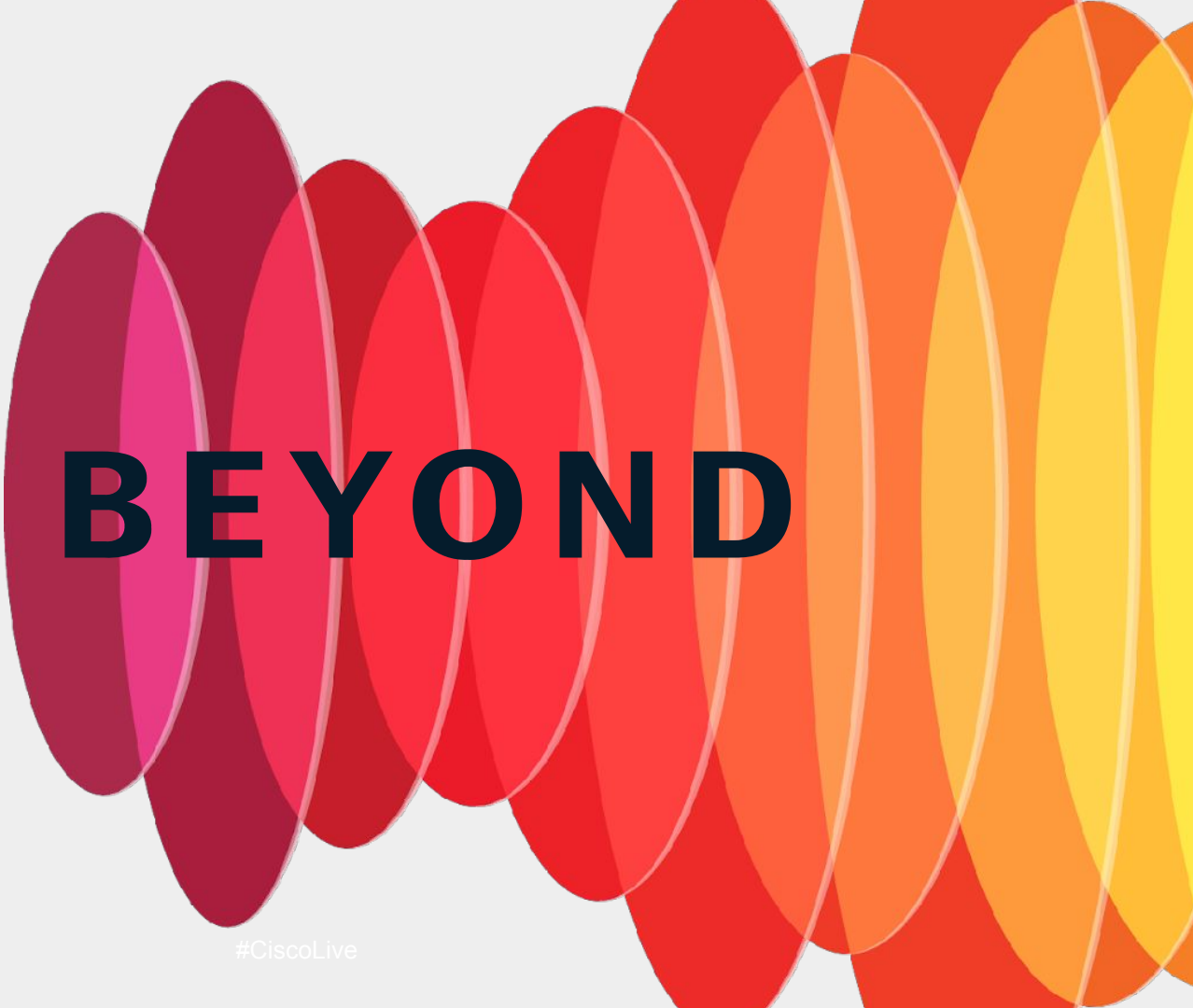
Waiting
on
Approval to
Operate

haven't
looked
into it
yet

Make your way
through the
activities in order

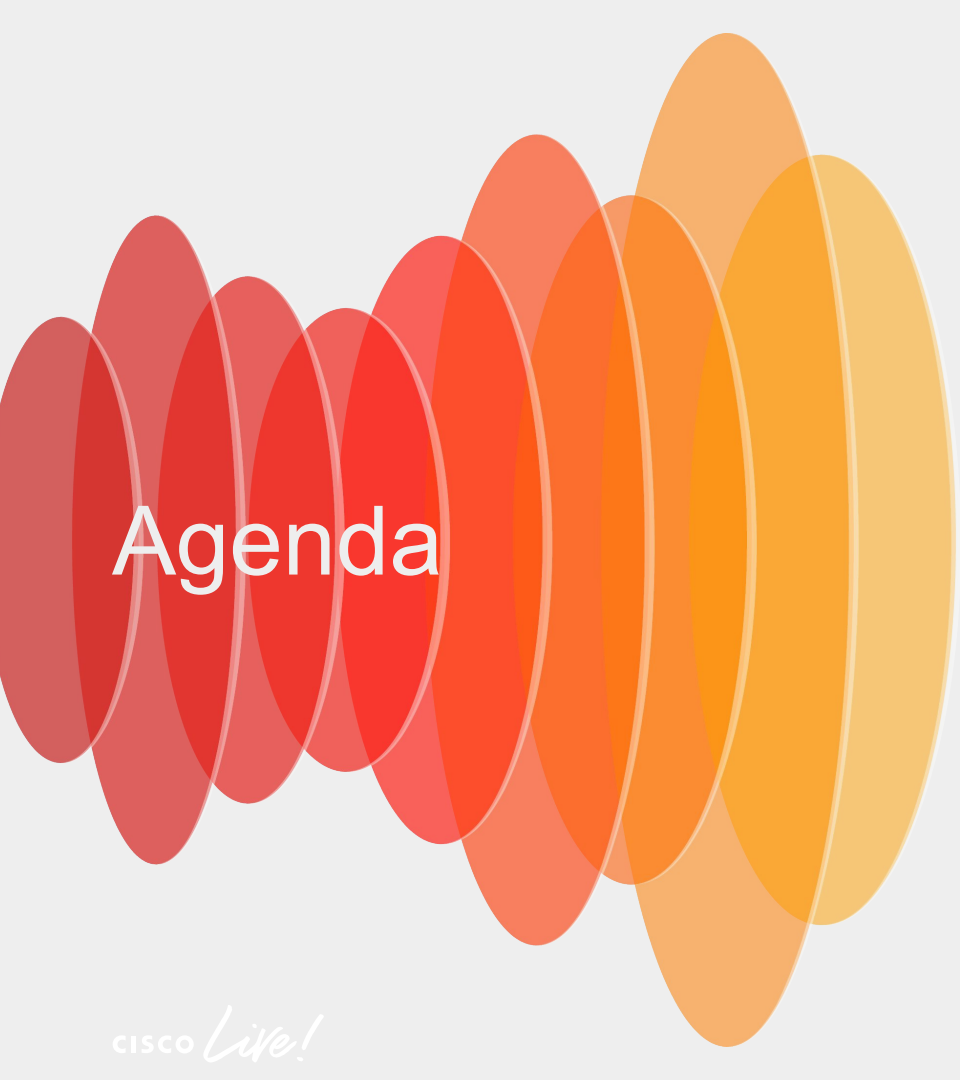


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GO BEYOND

#CiscoLive



Agenda

- Introduction
- Second title goes here
- Third title goes here
- Fourth title goes here
- Fifth title goes here
- Conclusion

Agenda

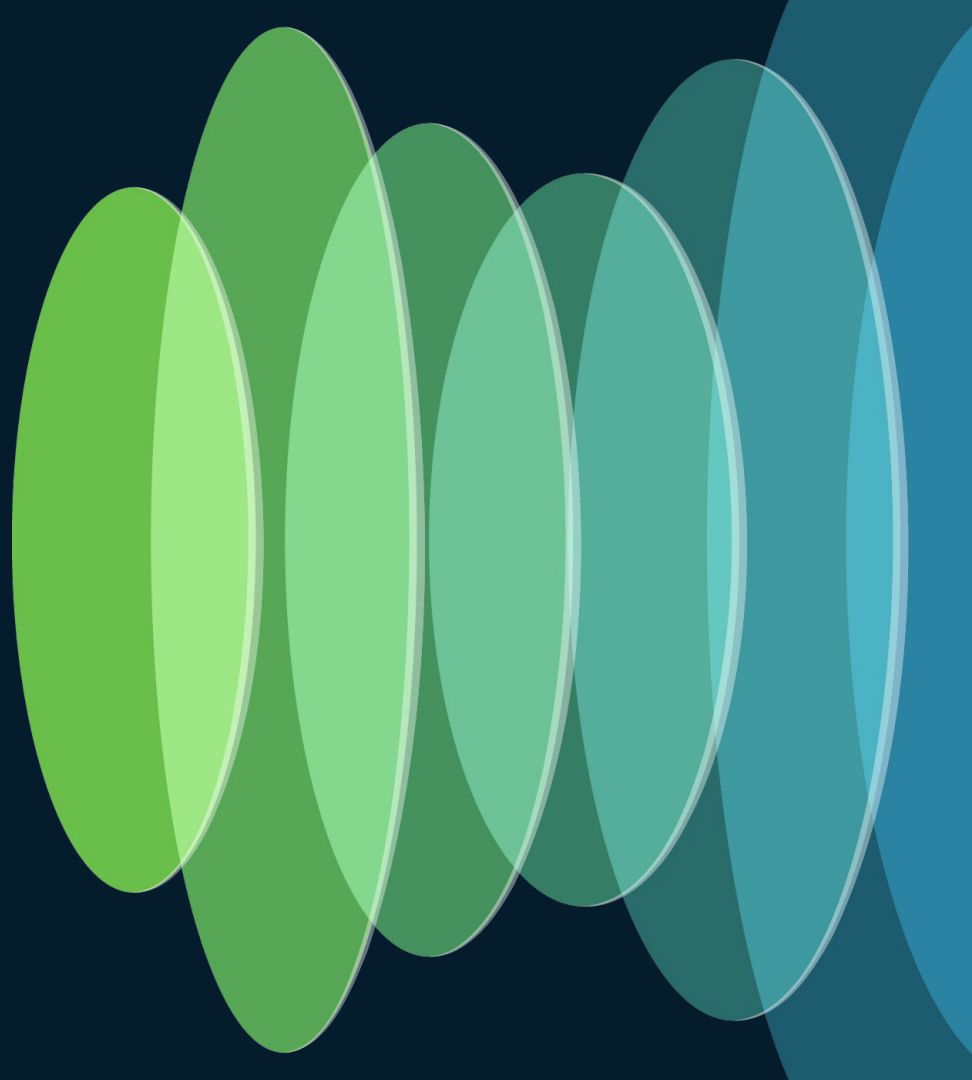
- Introduction
- Second title goes here
- Third title goes here
- Fourth title goes here
- Fifth title goes here
- Conclusion

- Make sure every slide is assigned to a layout from the new template.
 - Reset slides to the correct layout using Home/Layout (both PC and Mac).
 - Reset a slide back to the correct formatting using:
 - Home/Reset (PC)
 - Home/Layout/Reset Layout to Default Settings (Mac)
- Resetting a slide to the proper layout can resolve issues like disappearing titles or misplaced bullets.
- If slide numbers are not formatting correctly after the slides have been moved to the new template and connected to the correct layout, then turn the slide numbers off and then back on.
- Home/Replace (PC) Format/Replace Fonts (Mac) allows you to replace fonts globally.

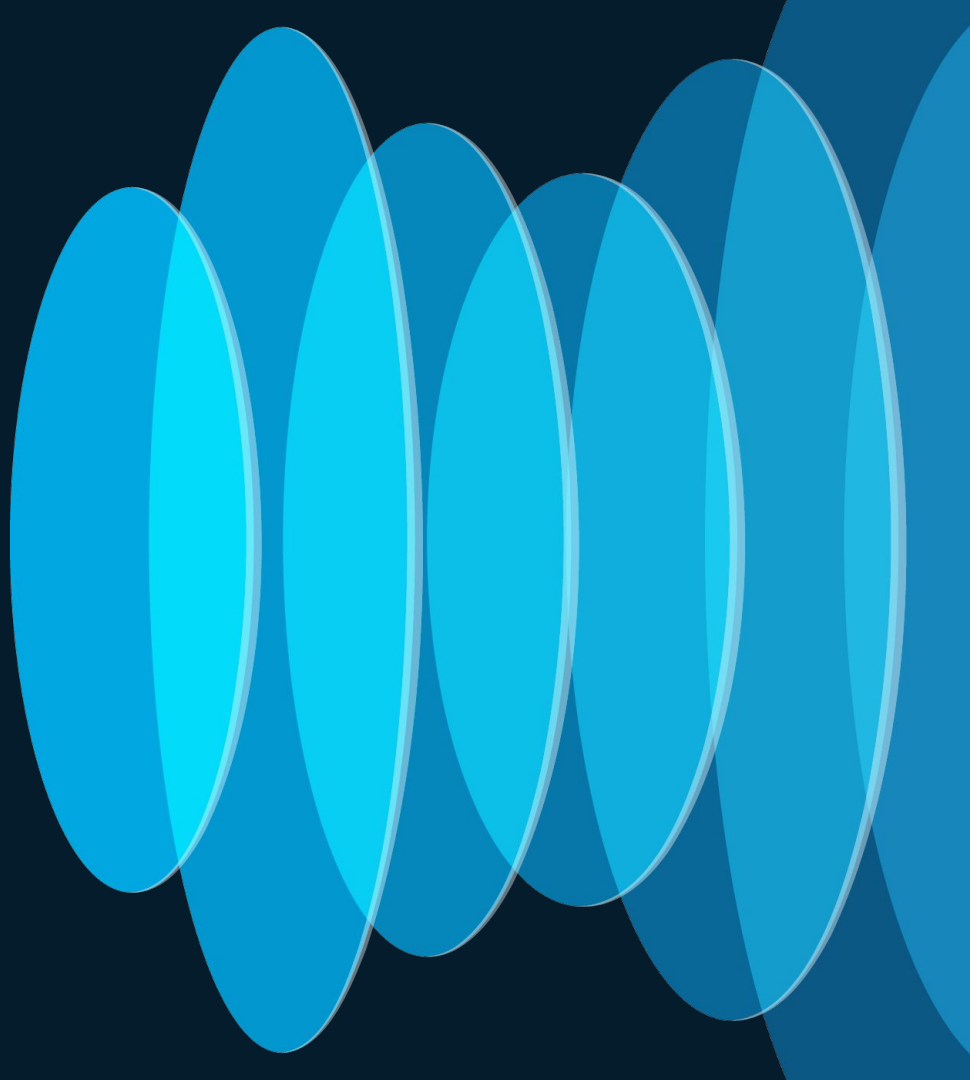
- Your presentation will be saved and posted as a PDF, so what you see onscreen in Normal Mode is how the PDF will appear.
- Split up a series of animations over several slides so key information is not hidden when saved as a PDF. Include a final slide with all elements in place.
- If you include log files in your slides, please make sure they come from a lab system—not a customer production system that could contain sensitive customer information.
- Use text for just the most important data, with a minimum font size of 14 pt.
- If you have a number of text slides in a row, try to keep the same size text across all the slides to make it easier to read in the flow.

- Once you have entered your Session ID on the Title Slide:
 - Copy the Session ID
 - Insert / Header & Footer / Paste the Session ID into the Footer box
 - Ensure Slide number and Footer checkboxes are marked
 - Click “Apply to All”

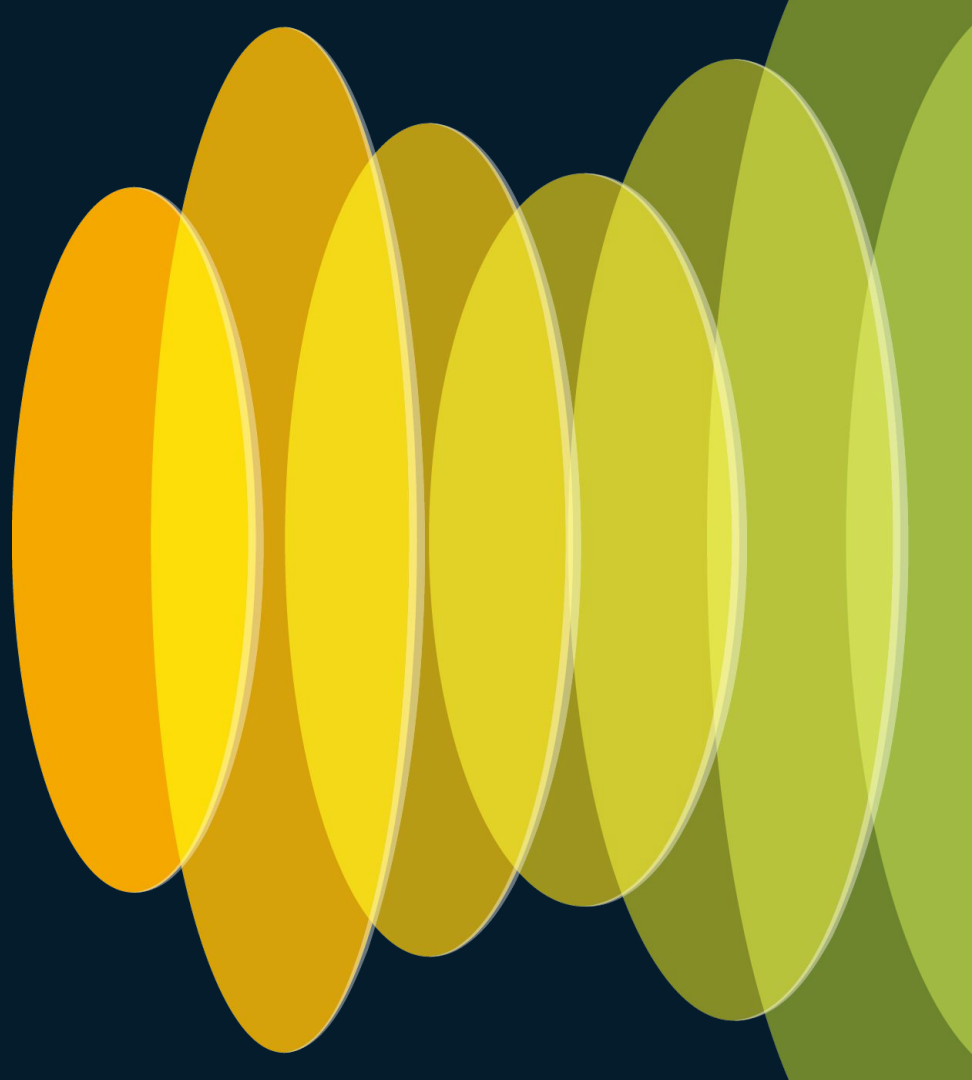
Segue



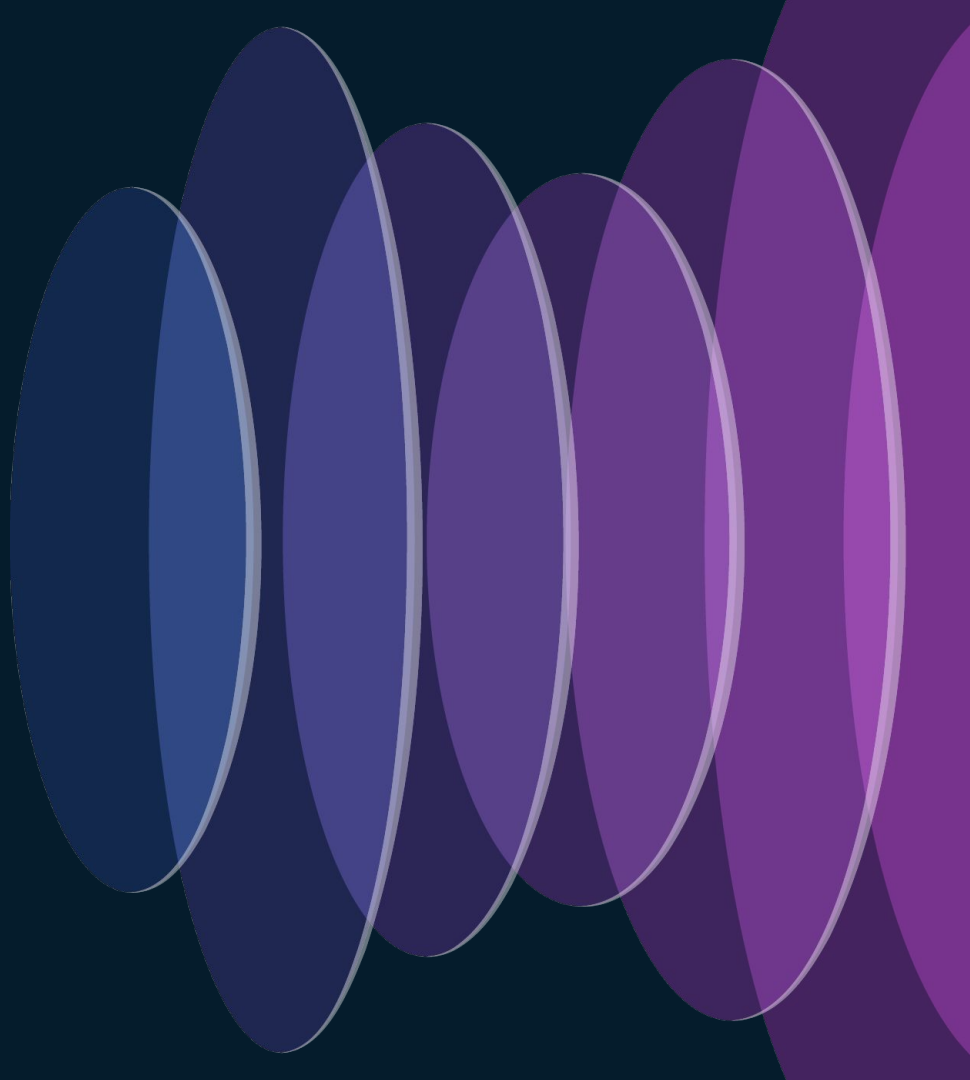
Segue 2



Segue 3

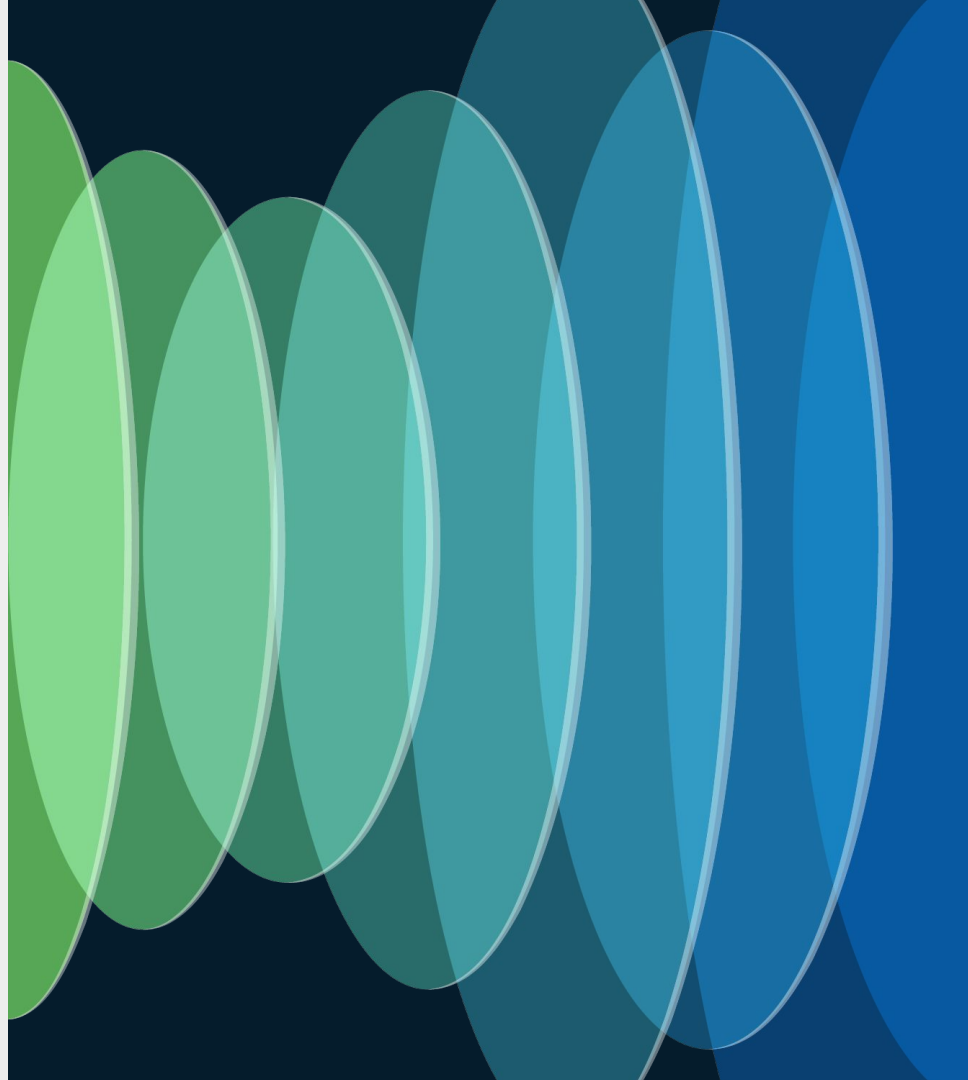


Segue 5

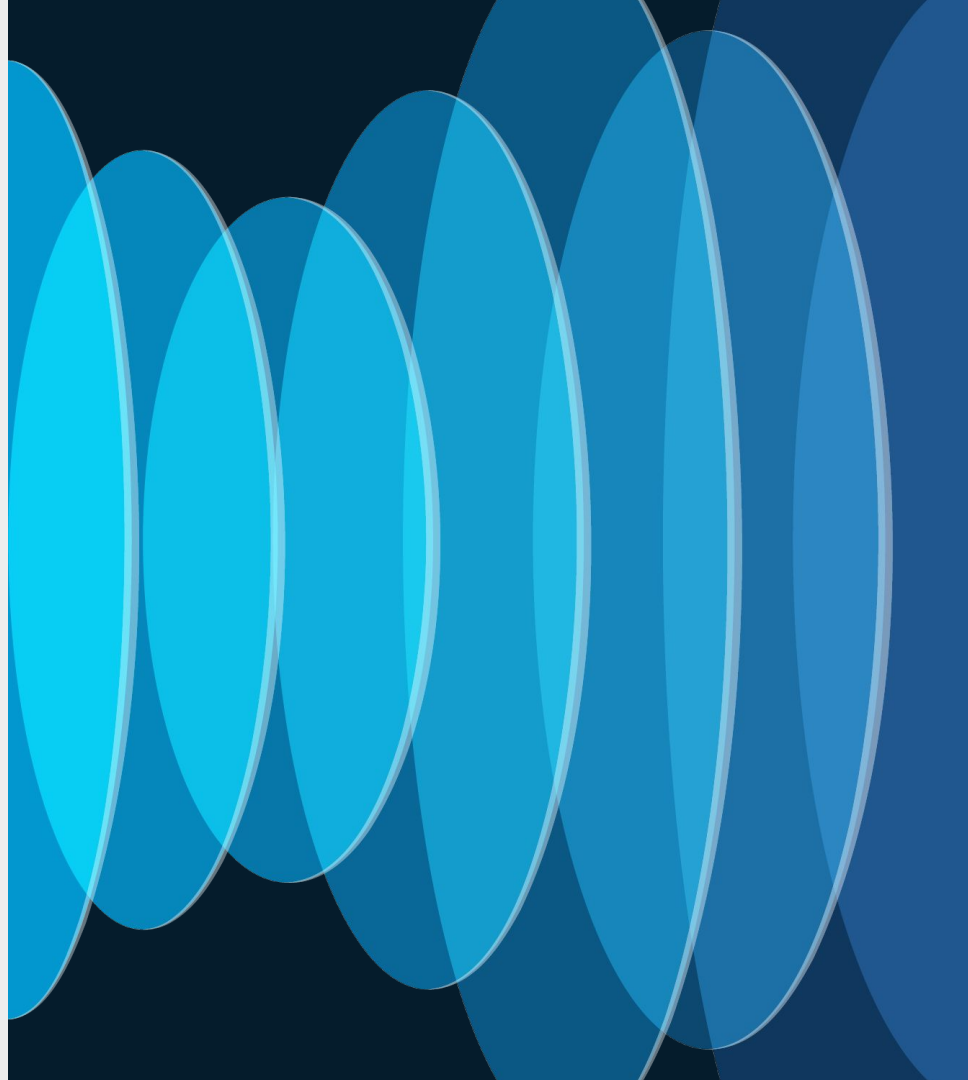


Video

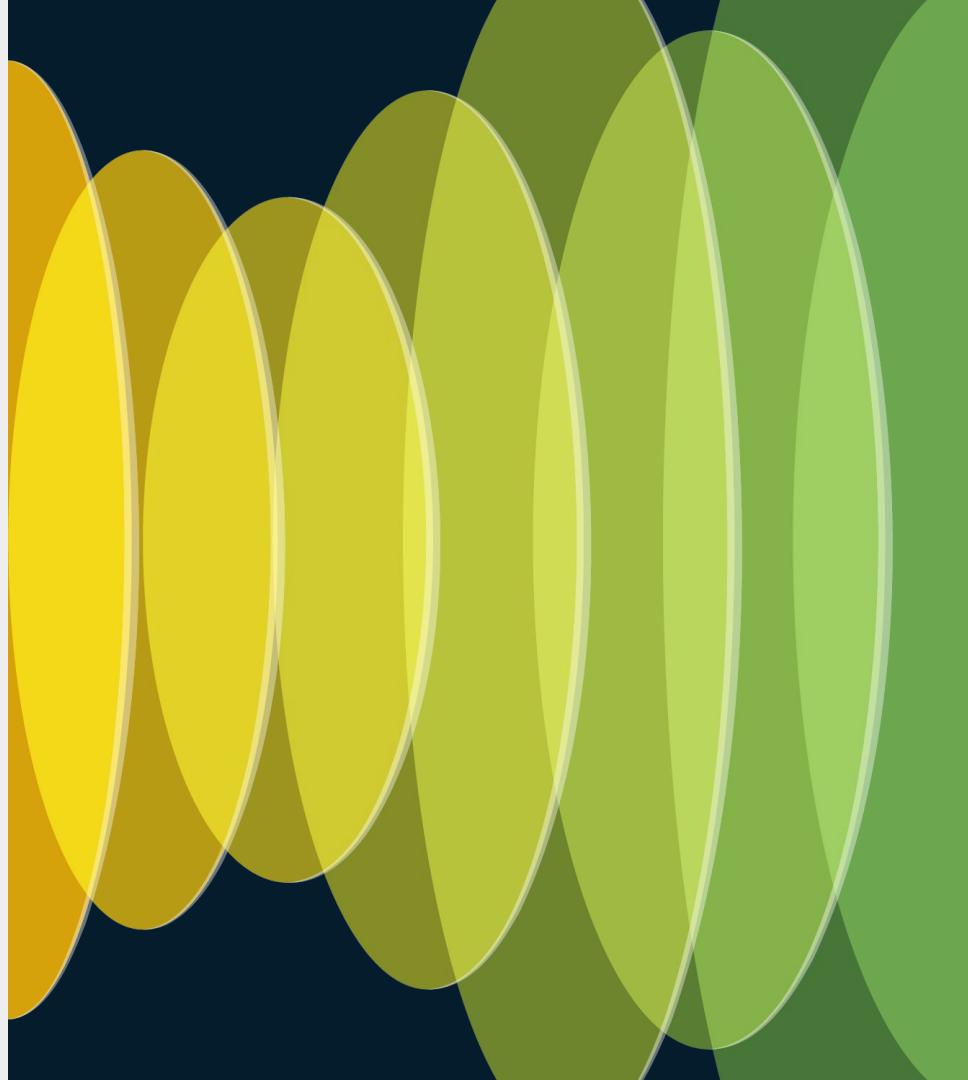
CISCO *Live!*



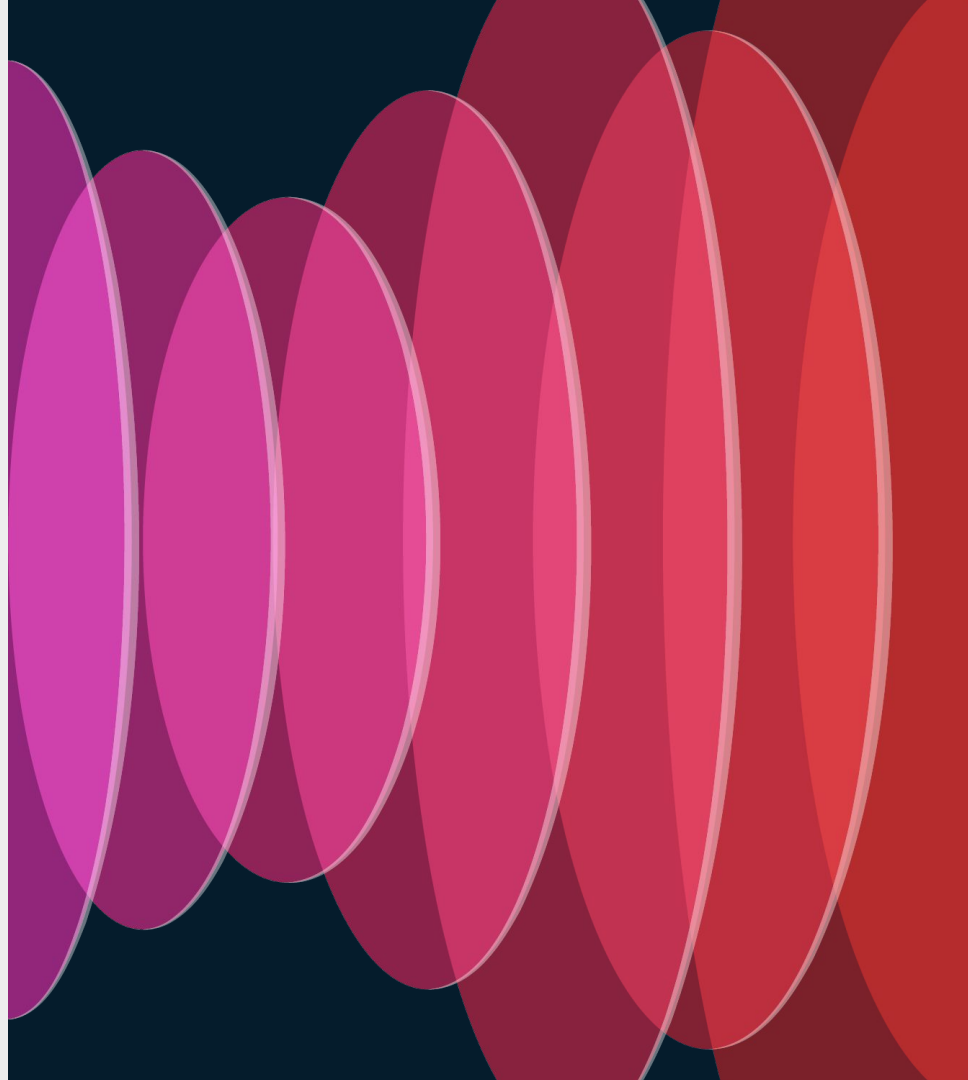
Video 2



Demo



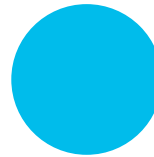
Demo 2



Color palette

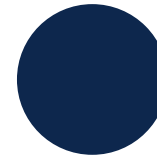
- Use the hero palette colors as much as possible.
- Accent colors should only be used to call attention to important details, such as in a chart.

Hero



Sky Blue

R 0
G 188
B 235



Midnight Blue

R 13
G 39
B 77

Accent



Medium
Blue

R 0
G 81
B 175



Green

R 116
G 191
B 75



Orange

R 251
G 171
B 24



Red

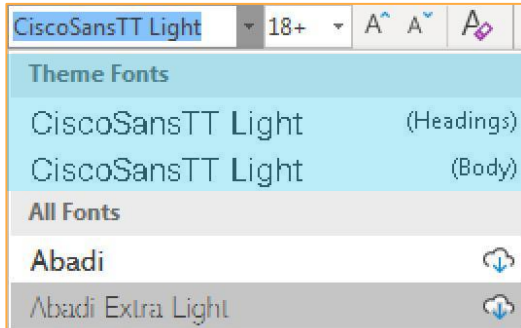
R 227
G 36
B 27

Always use the template themes. It ensures consistency and reduces editing time when you share content between presentations.

Theme fonts

PowerPoint provides two theme fonts – for headings and body. They are found at the top of the font menu.

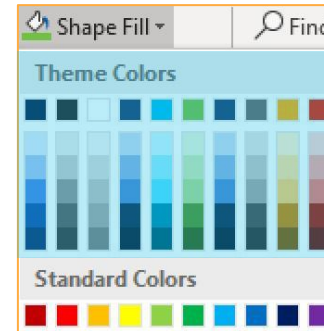
Do not select fonts from the “All Fonts” section of the list.



Theme colors

Our brand colors are included in the theme color section. Use only these colors and associated tints/shadows.

Do not use Standard Colors or create custom colors.



Seven tips for better presentations

1. Tell a story—make them care
2. Start with what's most important to them
3. Keep it simple, and short
4. Use more slides with less on them, and cut any slides that you can
5. Use clear, natural language
6. Make it a conversation and leave time to listen
7. Tell them what to do next—get them to act

- CiscoSansTT Light font is the only font used in the presentation
 - Exception: Courier can be used to represent code
- Body copy uses sentence case, size 20, left aligned
 - Sub-bullets are size 18 and indented
 - Hyperlink: www.cisco.com
- Use Cisco highlight color when emphasizing words, do not italicize

Dark Bullet slide / sentence case / size 28

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Layout: Dark Title and subtitle and bullet

Subtitle: Size 18, left aligned

- CiscoSansTT Light font is the only font used in the presentation
 - Exception: Courier can be used to represent code
- Body copy uses sentence case, size 20, left aligned
 - Sub-bullets are size 18 and indented
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- Use Cisco highlight color when emphasizing words, do not italicize

Layout: Dark Bullet title only

- Use this layout when you have to show six or more bullets
- Text size should be approximately 20 pt
- Use paragraph spacing to clearly separate each point
- Use **bold** text sparingly

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- Text size should be approximately 20 pt
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- Use this layout when you have to show six or more bullets
- Text size should be approximately 18 pt
- Use paragraph spacing to clearly separate each point
- Use **bold** text sparingly

- Use this layout when you have to show six or more bullets
- Text size should be approximately 18 pt
- Use paragraph spacing to clearly separate each point
- Use **bold** text sparingly

- Use this layout when you have to show 3 columns of text

- Use this layout when you have to show 3 columns of text

- Use this layout when you have to show 3 columns of text

- Use this layout for lengthy bullet text that also has a subtitle

- Use this layout for lengthy bullet text

This is a sample headline

Put your main point here.
Use this space for a brief paragraph – no more than two or three sentences.
Font size should be around 24 pt.

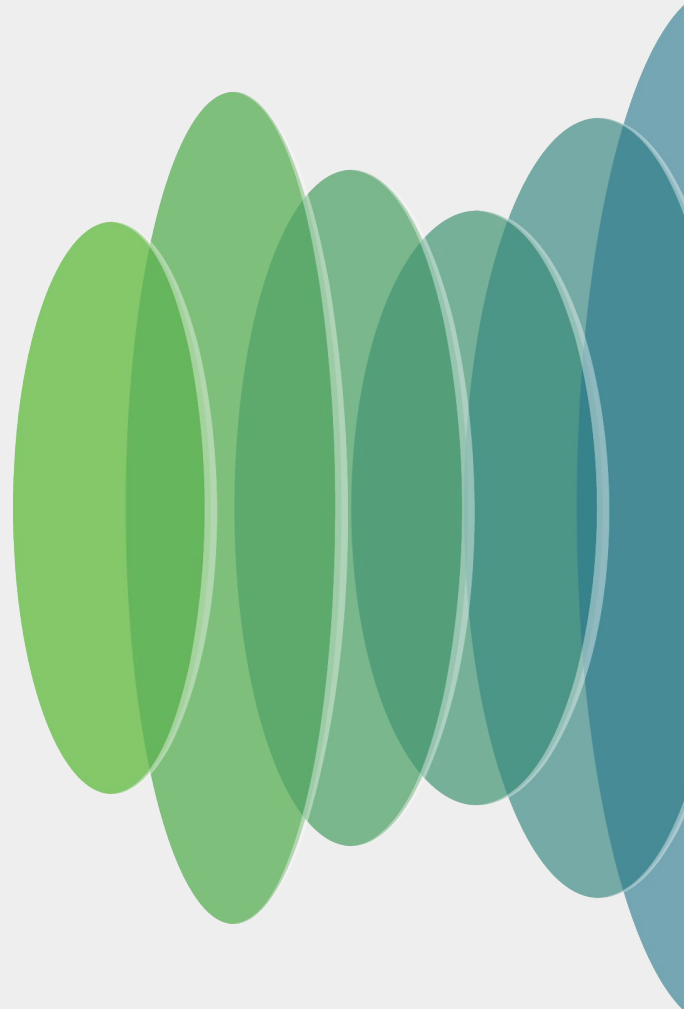
- Secondary information goes here
- Keep bullets brief
- Use line spacing to clearly separate each point
- Use the two-column layout for text-heavy slides



Use this space to provide a bit of detail.

*“Quote text is left aligned,
with a point size of 36
points.”*

Source Name
Company XYZ



100

100

100

100

100

100

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100

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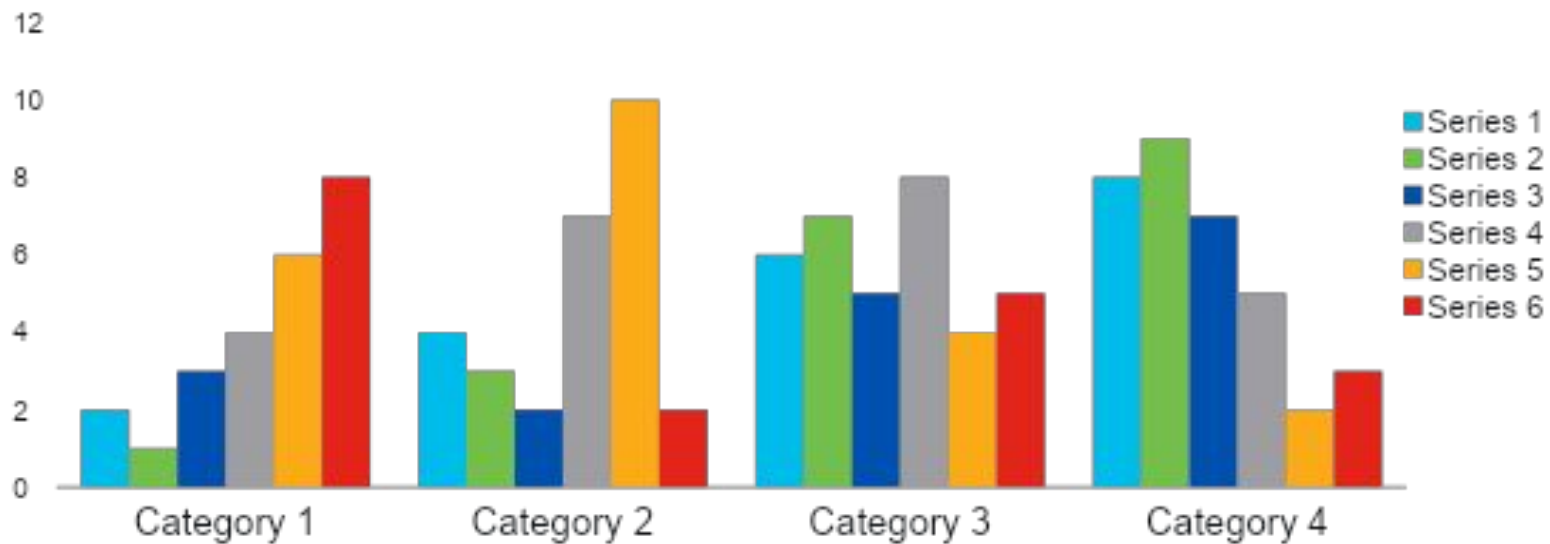
100

100

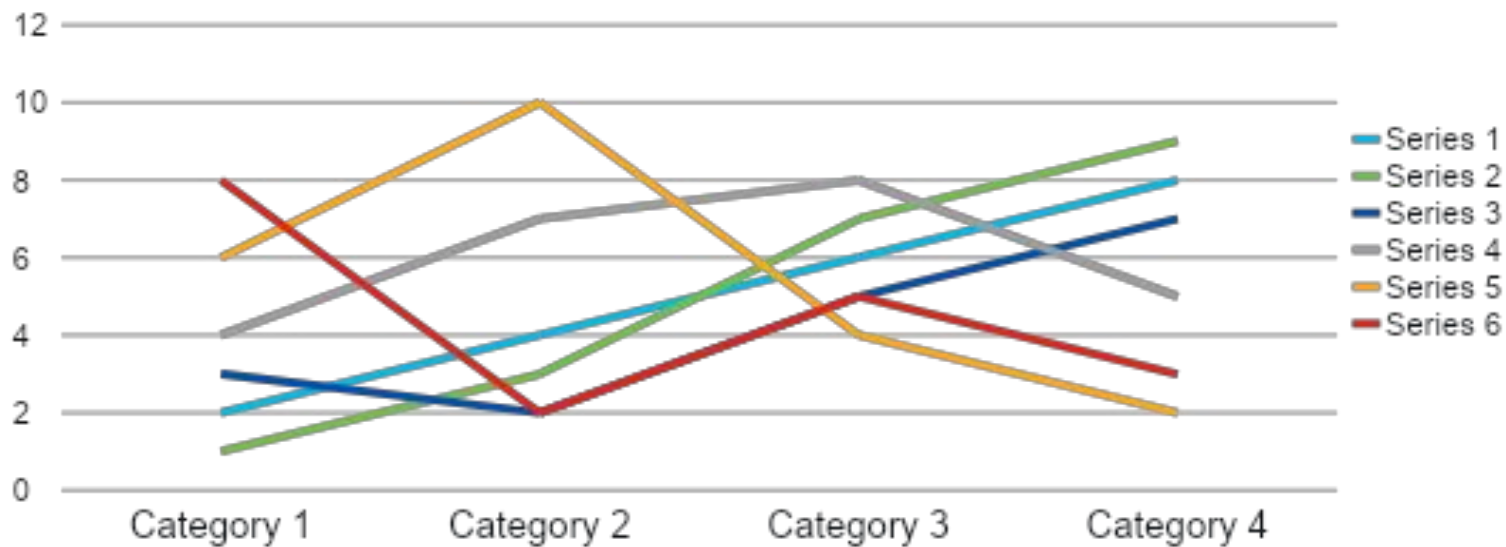
100

100

Enter source information here



Enter source information here



Enter source information here



Complete a minimum of 4 session surveys and the Overall Event Survey to be entered in a drawing to win 1 of 5 full conference passes to Cisco Live 2025.



Earn 100 points per survey completed and compete on the Cisco Live Challenge leaderboard.



Level up and earn exclusive prizes!



Complete your surveys in the Cisco Live mobile app.

Continue your education

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- Visit the Cisco Showcase for related demos
- Book your one-on-one Meet the Engineer meeting
- Attend the interactive education with DevNet, Capture the Flag, and Walk-in Labs
- Visit the On-Demand Library for more sessions at www.CiscoLive.com/on-demand

Contact me at: **Insert preferred comms method**



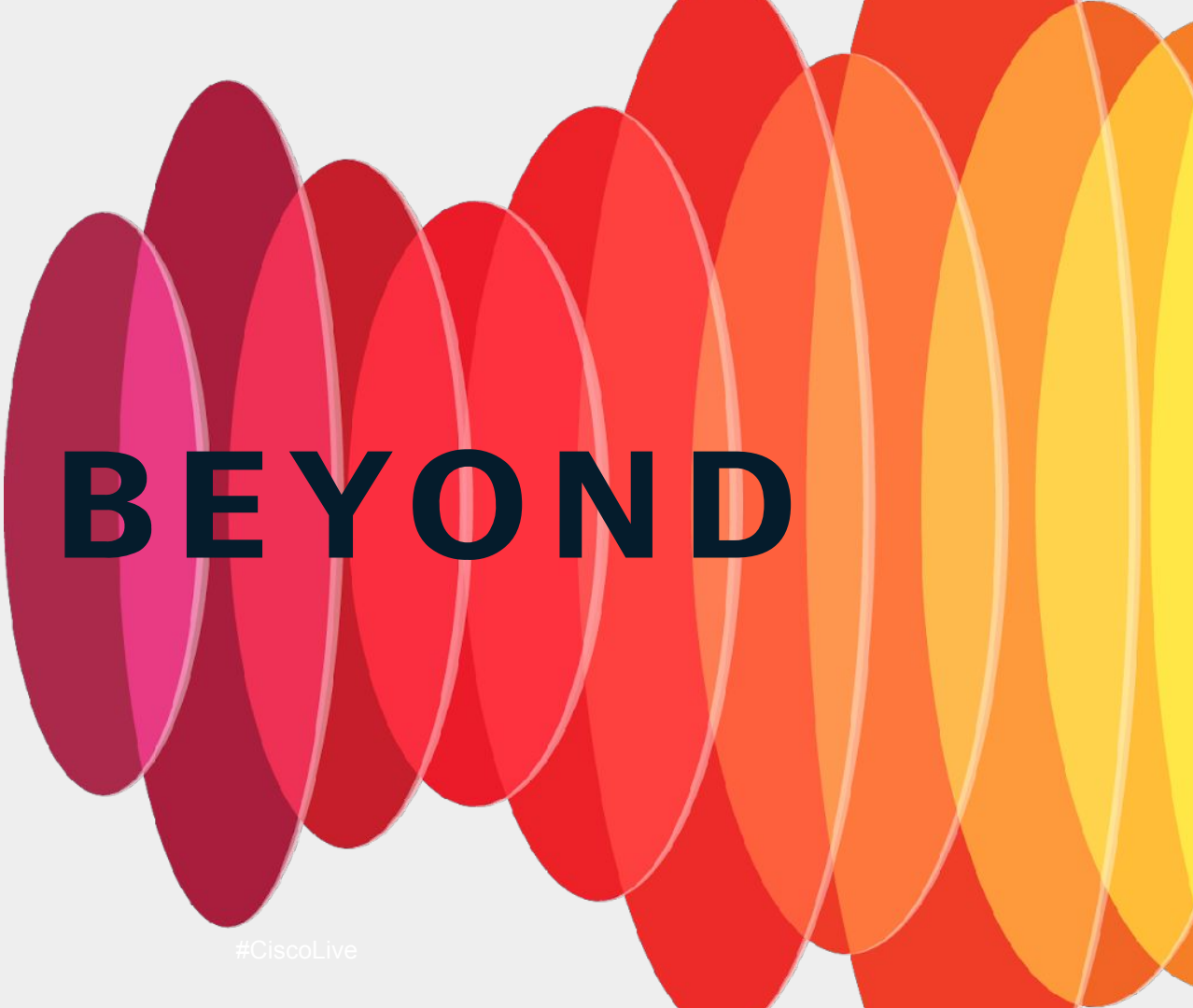
The bridge to possible

Thank you

CISCO *Live!*

#CiscoLive

cisco *Live!*



GO BEYOND

#CiscoLive

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