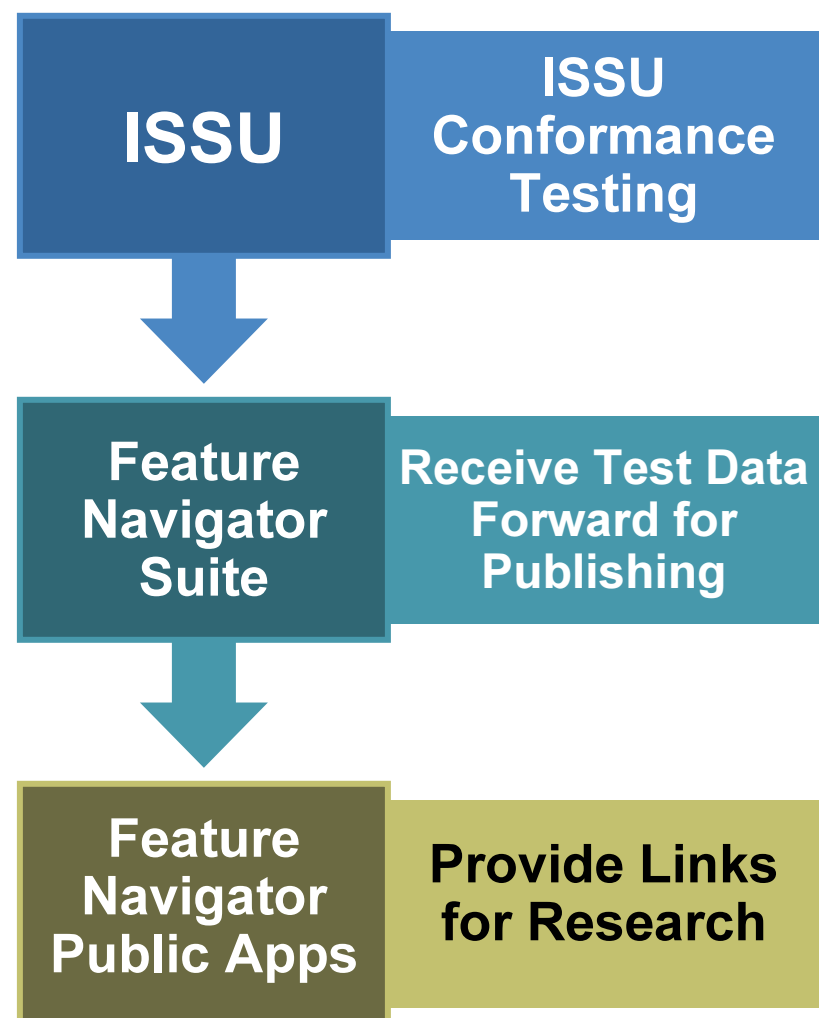**CISCO SYSTEMS**

Researching In-Service Software Upgrade Compatibility

Cisco Public

ISSU Requires Research:
Research Is Made Easy with Cisco.com

- Cisco IOS® Software Release 12.2SB will allow for in-service upgrades going forward

- Cisco internal testing will verify software compatibility

- A new Cisco IOS software release will be deemed compatible, base-level compatible, or incompatible

- Customers will need to know in advance whether new software is ISSU-compatible

- Cisco.com will provide the answer

ISSU | **ISSU Conformance Testing**

↓

Feature Navigator Suite | **Receive Test Data Forward for Publishing**

↓

Feature Navigator Public Apps | **Provide Links for Research**

Compatibility Matrix

- **Cisco testing will determine the in-service upgrade/downgrade compatibility for all internal SSO-capable Cisco IOS software— three designations are possible**

C **Compatible**

Base-level system infrastructure **and** all optional HA-aware subsystems are compatible

An in-service upgrade or downgrade between these versions will succeed with minimal service impact

B **Base-level compatible**

One or more of the optional HA-aware subsystems are not compatible

This means an in-service upgrade or downgrade between these versions will succeed, however, some subsystems will not be able to maintain state during the transition

Careful consideration of the impact this may have on operation and service is required before an in-service upgrade should be attempted
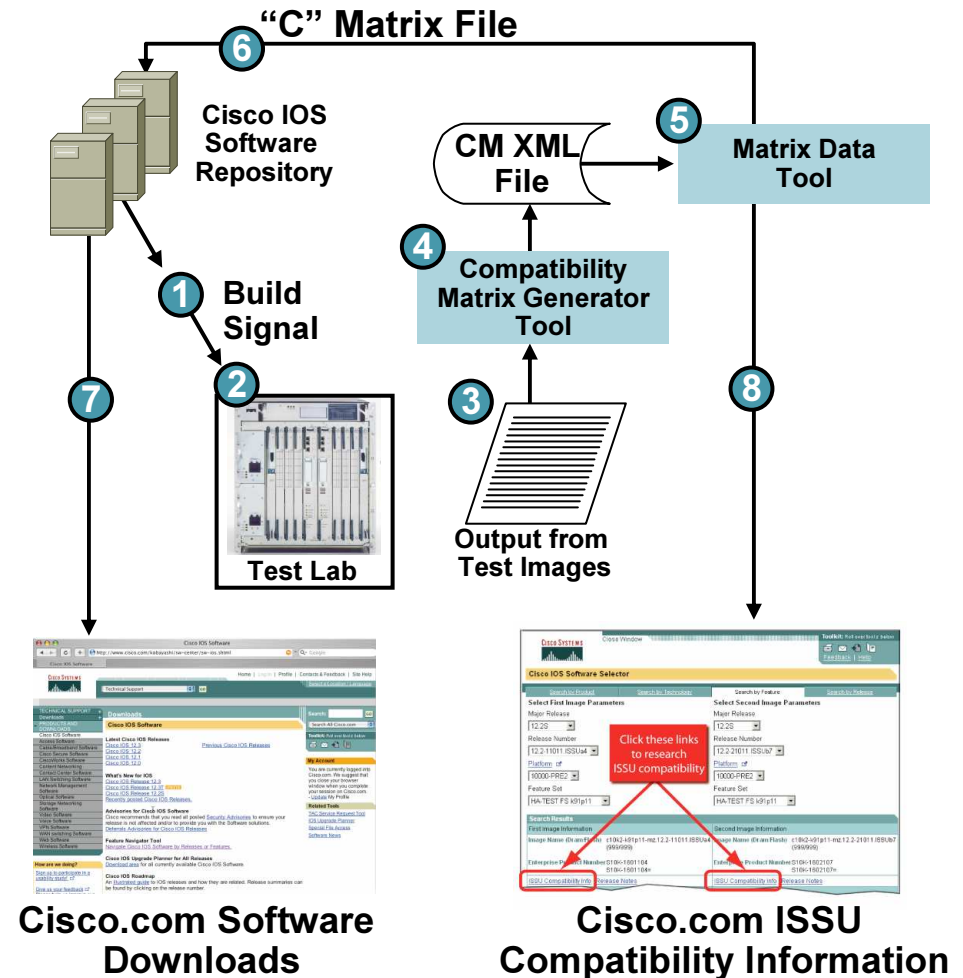
I **Incompatible**

There exists core set of system infrastructure that must be able to interoperate in a stateful manner for SSO to function correctly

If any of these "required" features or protocols is not interoperable, then the two versions of the Cisco IOS images are declared "incompatible"
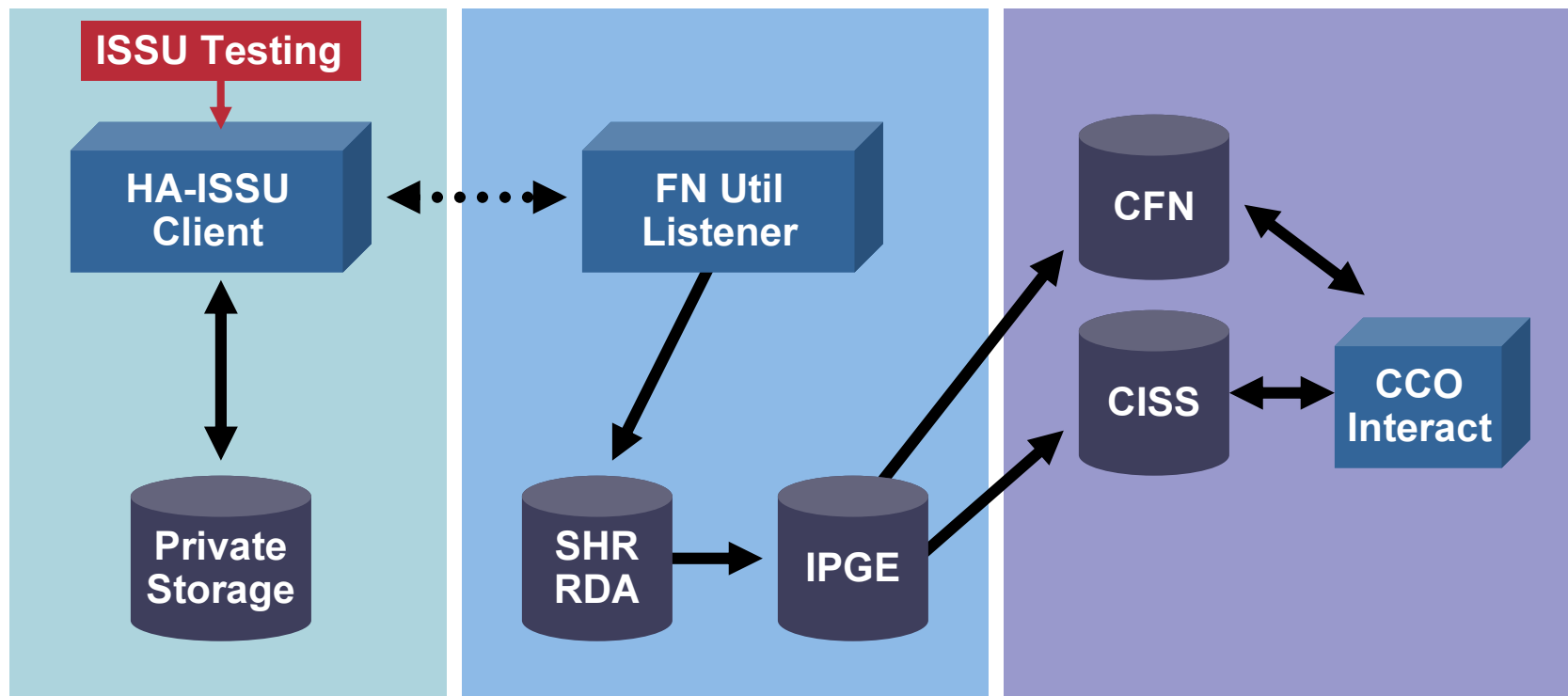
This means an in-service upgrade or downgrade between these versions is not possible

Cisco ISSU Compatibility Testing

- **Cisco lab tests each new Cisco IOS release for compatibility with previous releases within an 18-month window**

- **Back-end system populate what you see on Cisco.com directly from these test results**

"C" Matrix File

Cisco IOS Software Repository

CM XML File

6

5 Matrix Data Tool

4 Compatibility Matrix Generator Tool

1 Build Signal

2 Test Lab

3 Output from Test Images

7

8

Cisco.com Software Downloads

Cisco.com ISSU Compatibility Information

System Interaction for Data Population

- Cisco internal testing determines compatibility matrix
- Automated system feeds data to CCO for delivery to customers
- Customers interact with familiar tools – CFN and CISS

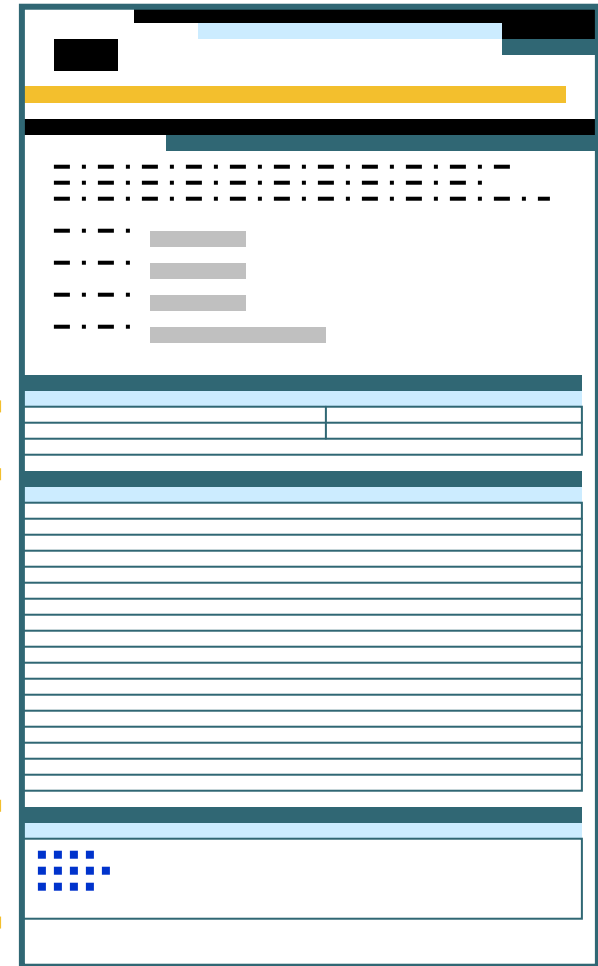# Interface Modifications

Current Layout When Viewing 1 Image:

- **Selected release, platform, feature set, image**

- **Image name, product, and flash/DRAM info**

- **Feature listing**
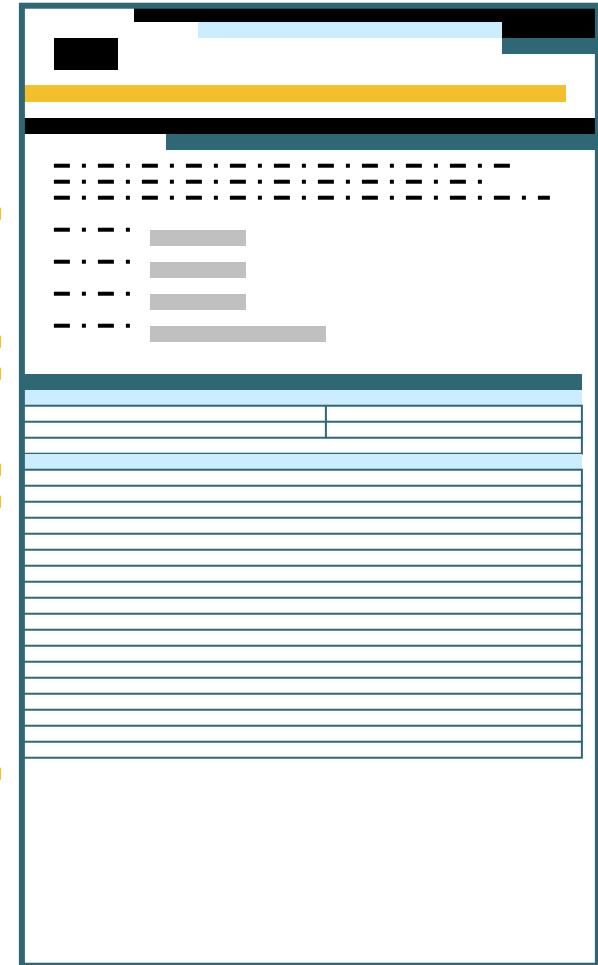
Interface Modifications

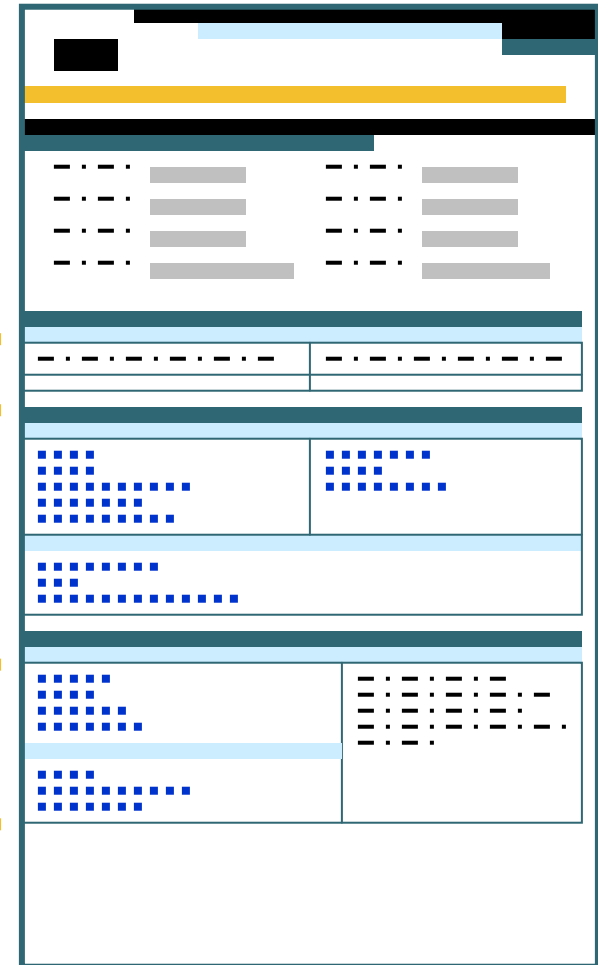## New Interface Changes When Viewing 1 Image:

- ISSU compatibility status listed

- List of potential ISSU images; user clicks to compare current image with new image

Interface Modifications

New Interface Changes When Viewing 2 Images:

- **ISSU compatibility status listed**

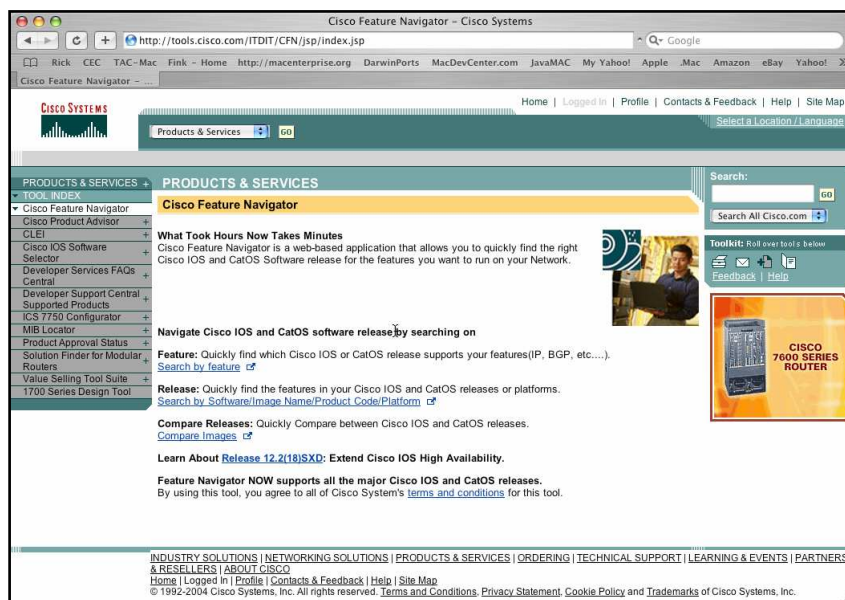- **Compatible, incompatible, and notes section for ISSU-capable images**

Cisco Public 8

Summary

- **Easy to use tools available on Cisco.com to determine Cisco IOS Software compatibility**

www.cisco.com/go/fn

Products and Services

Cisco Feature Navigator

www.cisco.com/go/ciss

Products and Services

Cisco IOS Software Selector

Cisco Public