

Cybersecurity Risk Management Best Practices (WG 4)

Cybersecurity Framework for the Communications Sector

Presentation to CSRIC IV

September 24, 2014

Co-Chairs:

Robert Mayer, USTelecom

Brian Allen, Time Warner Cable



Agenda

- Goal and Objectives
- WG4 Team and Organization
- Approach
- Timeline
- Status
- Next Steps

Goal and Objectives

- **Goal:** Develop voluntary mechanisms to provide macro-level assurance that communications providers are taking the necessary corporate and operational measures to manage cybersecurity risks across the enterprise
- **Objectives:** Assurances will demonstrate how communications providers are reducing cybersecurity risks through the application of the NIST Cybersecurity Framework, or an equivalent construct
 - Assurances can be tailored by individual companies to suit their unique needs, characteristics, and risks
 - Assurances are based on meaningful indicators of successful (and unsuccessful) cybers risk management
 - Assurances allow for meaningful internal and external assessments
- Identify challenges to implementing cybersecurity risk management practices and recommend actions the Commission can take to mitigate those challenges
- Produce an Interim Draft Report in mid-January 2015 and a Final Report in March 2015 addressing the voluntary mechanisms that provide for confidence in the resilience and reliability of core public communications functions in the face of cyber threats



WG4 Membership Team

106 members representing the communications sector, and representatives from the energy, financial and IT sectors, standards bodies, vendors, as well as federal and state departments and agencies.

Robert Mayer (Co-Chair)

Brian Allen (Co-Chair)

Samara Moore (Sr Policy Advisor)

Donna Dodson (Sr Tech Advisor)

Emily Talaga (Sr Economic Advisor)

Vern Mosley (FCC Liaison)

Adrienne Abbott

Anthony Acosta

Michael Alagna

Carl Anderson

Sohail Anwar

Nadya Bartol

James Bean

Chris Boyer

Chuck Brownawell

Lois Burns

Ingrid Caples

Joel Capps

Lisa Carnahan

Dan Cashman

William Check

Nneka Chiazor

Andre Christian

Larry Clinton

Edward Czarnecki

Andrew D'Uva

Shelton Darensburg

Kate Dean

Daniel Devasirvatham

Paul Diamond

Martin Dolly

Tanner Doucet

Seton Droppers

Vinit Duggal

Victor Einfeldt

Russell Eubanks

Paul Ferguson

Rick Foster

Craig Froelich

Inette Furey

Chris Garner

Michael Geller

Jessica Gulick

Stacy Hartman

Mary Haynes

Alex Hoehn-Saric

Chris Homer

Charles Hudson, Jr

Wink Infinger

Chris Jeppson

Susan Joseph

Franck Journoud

Merike Kao

Aniruddha R. Karmarkar

Kevin Kastor

John Kelly

Scot Kight

Danielle Kriz

Rick Krock

Greg Kulon

Jeremy Larson

Adam Levy

Greg Lucak

Ethan Lucarelli

John Madden

Daniel Madsen

Jennifer Manner

John Marinho

Beau Monday

Donna Bethea Murphy

Paul Nguyen

Jorge Nieves

Mike O'Hare

Michael O'Reirdan

Glen Pirrotta

Martin Pitson

Joel Rademacher

J. Bradford Ramsay

Alan Rinker

Chris Roosenraad

Robert Ross

Tony Sager

Harold Salters

Brian Scarpelli

Karl Schimmeck

J. J. Shaw

Ray Singh

Tom Soroka

Craig Spiezle

Bill Taub

Robert Thornberry

Matt Tooley

Fred Travis

Bill Trelease

Colin Troha

Danna Valsecchi

S. Rao Vasireddy

Phil Venables

Joe Viens

Christian Vogler

Jesse Ward

Errol Weiss

Kathy Whitbeck

Kelly Williams

Shawn Wilson

Pamela A. Witmer



WG4 Leadership Team

WG4 Leadership Team

- Co-Chairs: Robert Mayer, USTelecom and Brian Allen, Time Warner Cable
 - Segment Leads
 - Broadcast, Kelly Williams, NAB
 - Cable, Matt Tooley, NCTA
 - Satellite, Donna Bethea Murphy, Iridium
 - Wireless, John Marinho, CTIA
 - Wireline, Chris Boyer, AT&T
 - Feeder Group Initiatives
 - Barriers to Implementation, Co-Leads, Harold Salters T-Mobile, Larry Clinton, Internet Security Alliance
 - Mids/Smalls, Co-Leads, Susan Joseph, Cable Labs, Jesse Ward, NTCA
 - Top Cyber Threats and Vectors - Russell Eubanks, Cox, Joe Viens, TWCable
 - Ecosystem – Shared Responsibilities, Co-Leads, Tom Soroka, USTelecom, Brian Scarpelli, TIA
 - Measurement, Co-Leads, Chris Boyer, AT&T, Chris Roosenraad, TWCable

Advisors

- Donna Dodson, WG4 Senior Technical Advisor, NIST, Deputy Chief Cybersecurity Advisor & Division Chief for Computer Security Division
- Lisa Carnahan, NIST, Computer Scientist
- Emily Talaga, WG4 Senior Economic Advisor, FCC
- Tony Sager, Council on Cybersecurity
- Samara Moore, Department of Energy

Drafting Team

- Co-Leads – Stacy Hartman, CenturyLink, Robert Thornberry, Alcatel/Lucent, Paul Diamond, CenturyLink



Foundational Question

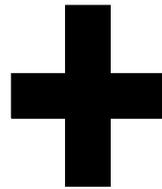


How will WG4's product help companies in the five segments contribute to their capacity to assure appropriate internal and external stakeholders of the sufficiency of their own cyber risk management practices?

- Cybersecurity is a risk to the business just like many other risks that businesses encounter - whether that is risk from a physical disaster, market risk, political risk etc. and companies must evaluate those risks and to respond accordingly.
- Companies are all different and have different processes to assess their risks. Driving towards a uniform process is counter-productive and inconsistent with the CSF construct.
- We are talking about elevating the industry's ability to understand their risk exposure and risk management posture. Essentially WG4 is organized to produce "segment specific process roadmaps" that build upon the risk management approach reflected in the CSF and tailored to five common operating environments.
- We recognize the need of external stakeholders to seek some assurances regarding progress and this dialogue began in May with industry and government representatives from the White House (NSC), DHS, the FCC, and Treasury and conversations continue.

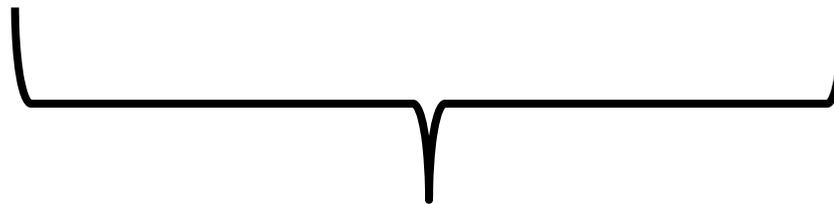


WG4 Approach



Functions	Categories	Subcategories	Informative References
IDENTIFY			
PROTECT			
DETECT			
RESPOND			
RECOVER			

Figure 1: Framework Core Structure

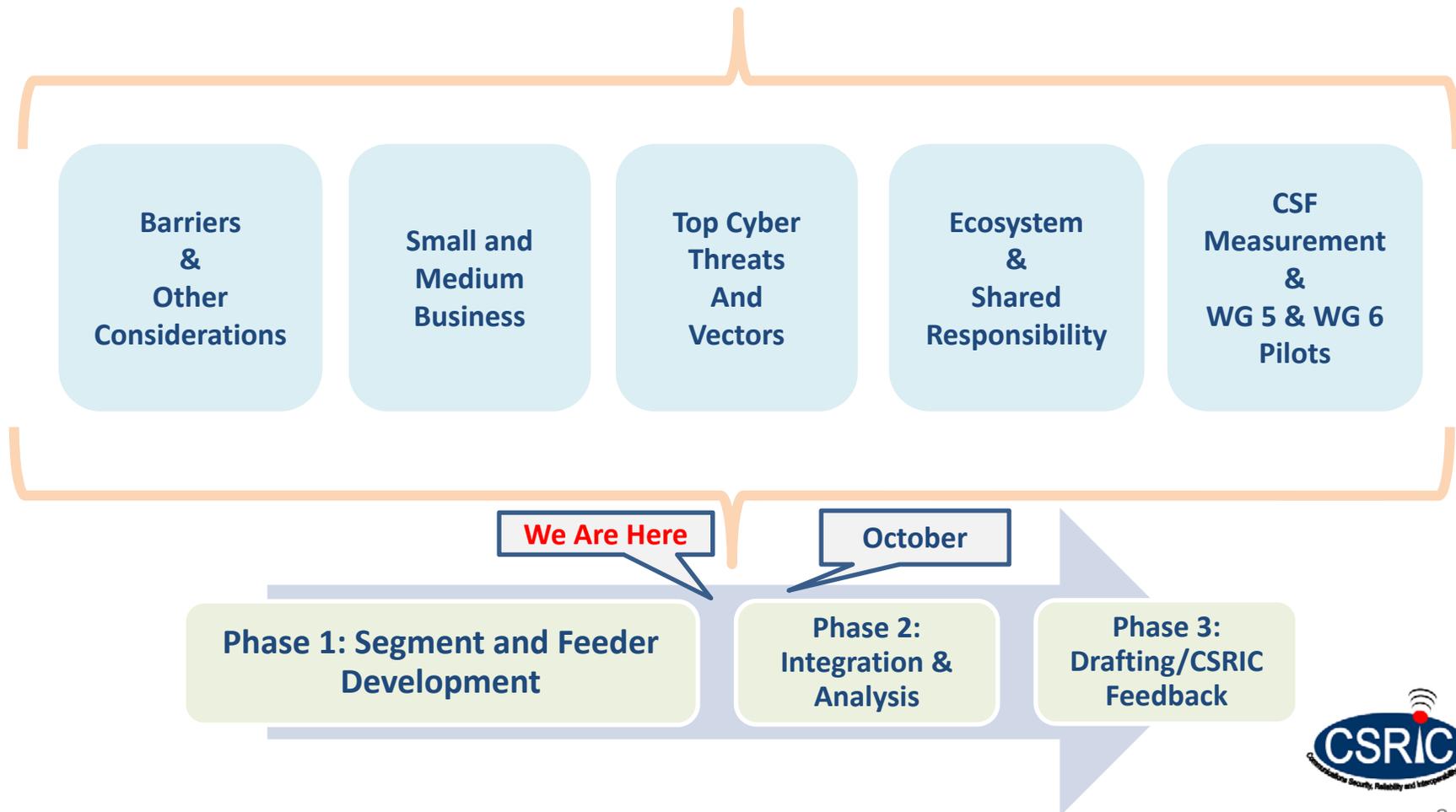


**Communications Sector and Segment
Risk Management Framework**



WG4 Structure

Each industry segment analyzes cyber risk management practices -- and informed by the feeder groups -- adapts the NIST Cybersecurity Framework (CSF) for voluntary use for their segment



Phase 2 Integration and Analysis

BROADCASTING



There are more than 14,000 radio and 1,700 television broadcasting facilities in the United States, sending broadcasts through the air to a frequency network of transmitters.

CABLE



The cable industry is composed of approximately 7,791 cable systems that offer analog and digital video programming services, digital telephone service, and high-speed Internet access service.

WIRELESS



Wireless technology consists of cellular phone, paging, personal communications services, high-frequency radio, unlicensed wireless and other commercial and private radio services.

WIRELIN

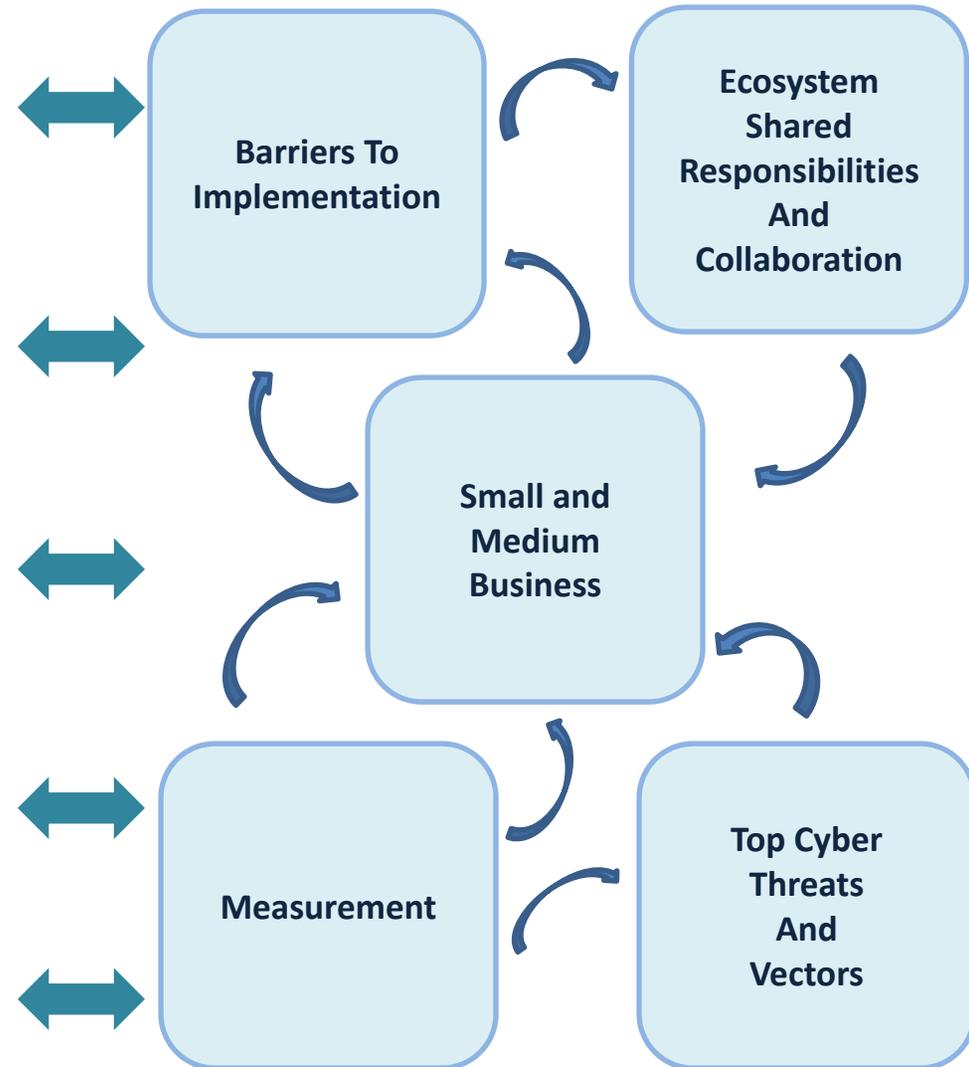


Over 1,000 companies offer wireline, facilities-based communications services in the United States. Wireline companies serve as the backbone of the Internet.

SATELLITE



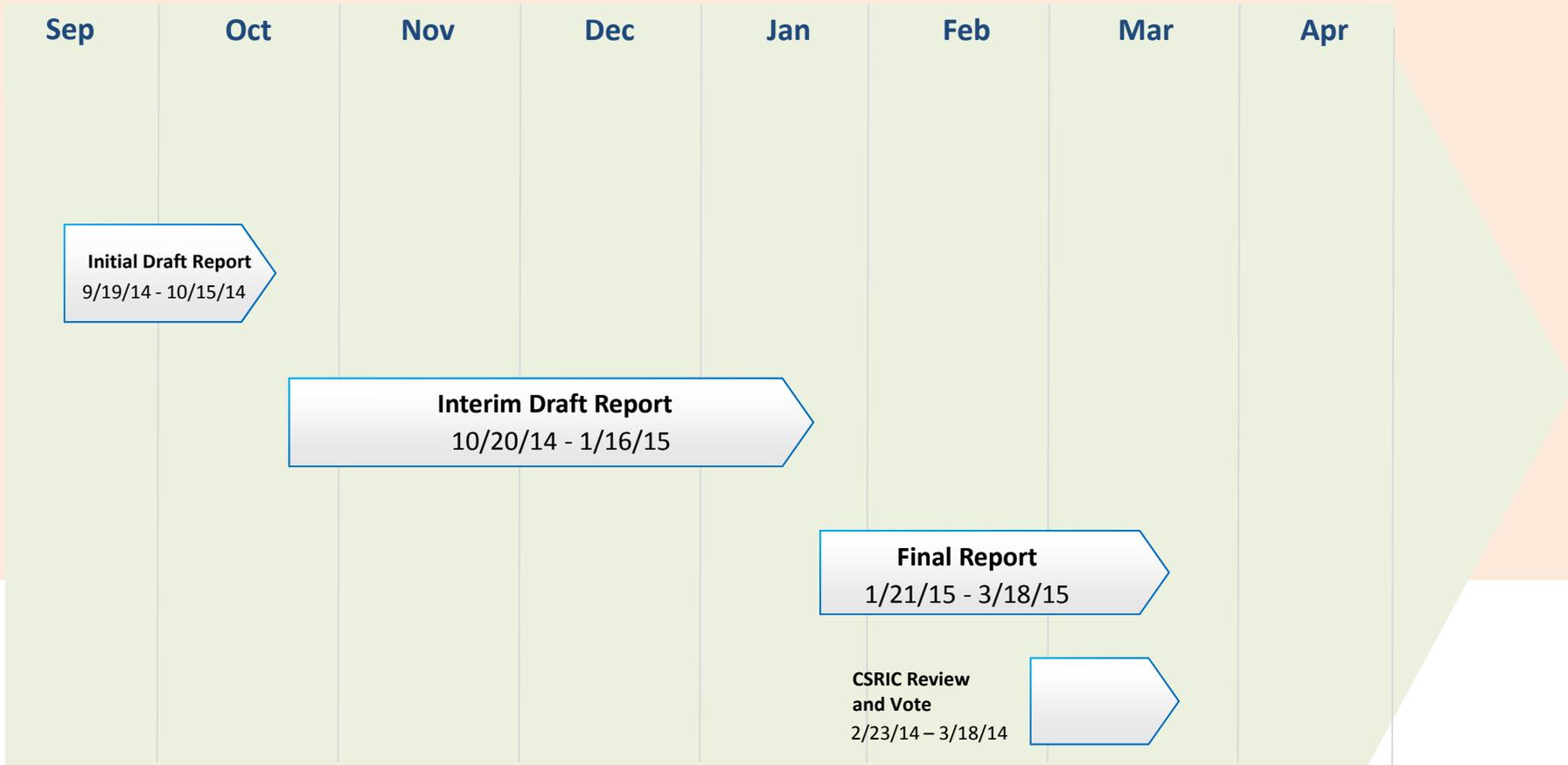
Satellite communications systems deliver advanced data, voice, and video communications, transmitting data from one point on the Earth to another.



Timeline

2014

2015



WG4 Status

- Five segment teams and five feeder group teams have met regularly over the summer and now are working with Final Report template to prepare initial narratives
- WG4 has held biweekly conference calls with the working group and leadership teams
- WG4 has held three face-to-face meetings with its members
- Segment and feeder initiative subgroups continue to meet and are developing input for the Interim Draft and Final Reports in uniform templates
- WG4 on track for a mid-January 2015 Interim Draft Report and a March 2015 Final Report

Next Steps

- Host fourth face-to-face WG4 meeting in November
- Continue iterative process to align segment cyber risk management practices with NIST Cybersecurity Framework, informed by the feeder initiatives
- Begin segment and feeder subgroup integration process to develop Interim Draft and Final Reports
- Continue Leadership and WG4 conference calls
- Provide periodic status updates to Steering Committee and Council

