

STARTING YOUR IT ORGANIZATION'S JOURNEY TO CLOUD IT

Scott Harney <sharney@virtual.com>

10/25/2016

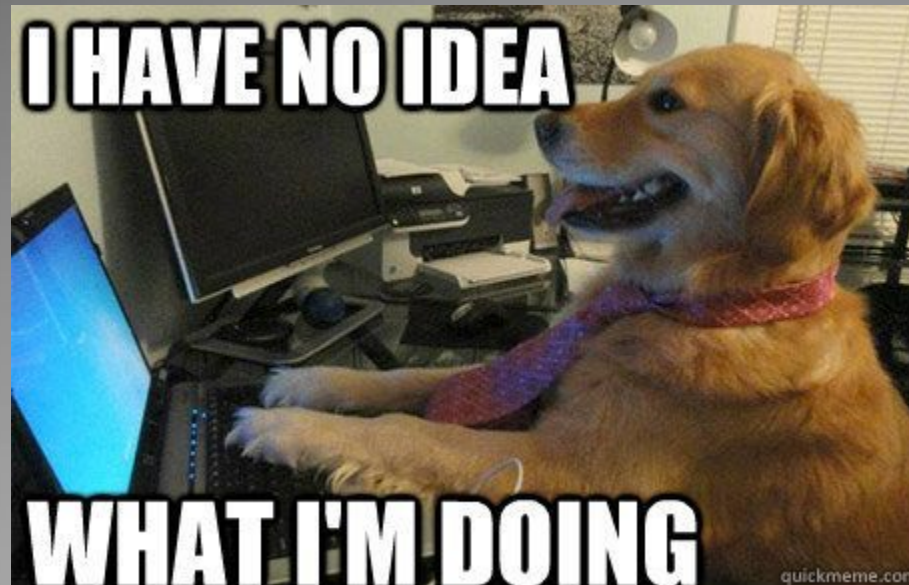
Twitter: @sharney

LinkedIn: <https://www.linkedin.com/in/scottharney>

INTRO



WHO AM I?



WHO AM I?

- Consulting Engineer for ASG
 - Provide pre-sales support
 - Also post-sales delivery PS and consulting
- Previous practitioner experience in customer roles
 - Storage and backup
 - Unix/linux engineer
 - Network engineer
- Live and work exclusively in LA



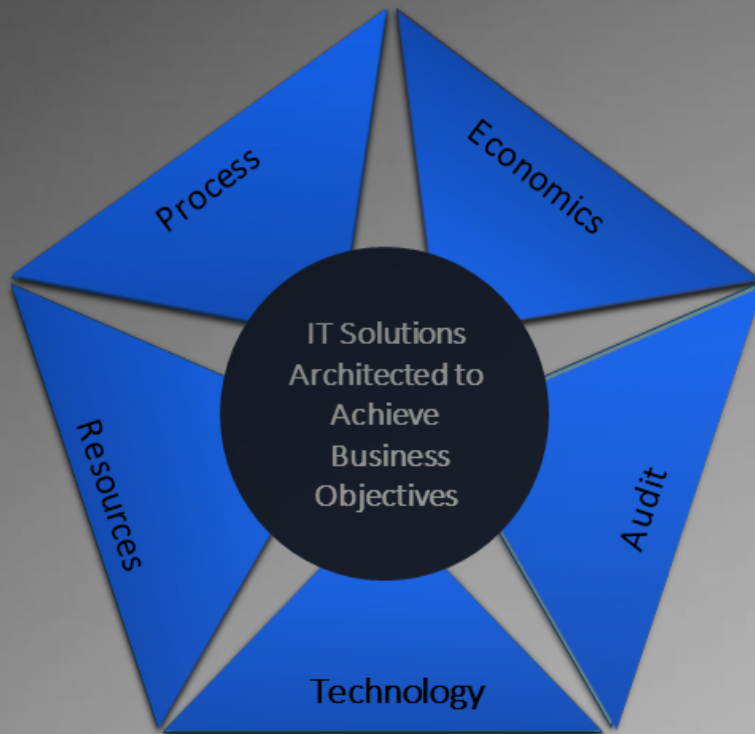
WHO IS ASG?

- Leading National systems integrator since 1981
- Headquarters in Denver, CO. has maintained a presence in LA throughout company history
- Provides Consulting services supporting the business of IT

<http://www.asgconsultingservices.com/>

<https://www.virtual.com/>

HOW ASG VIEWS IT



IT Transformation is not just about
technology
It's always about the business



BUT HOW?

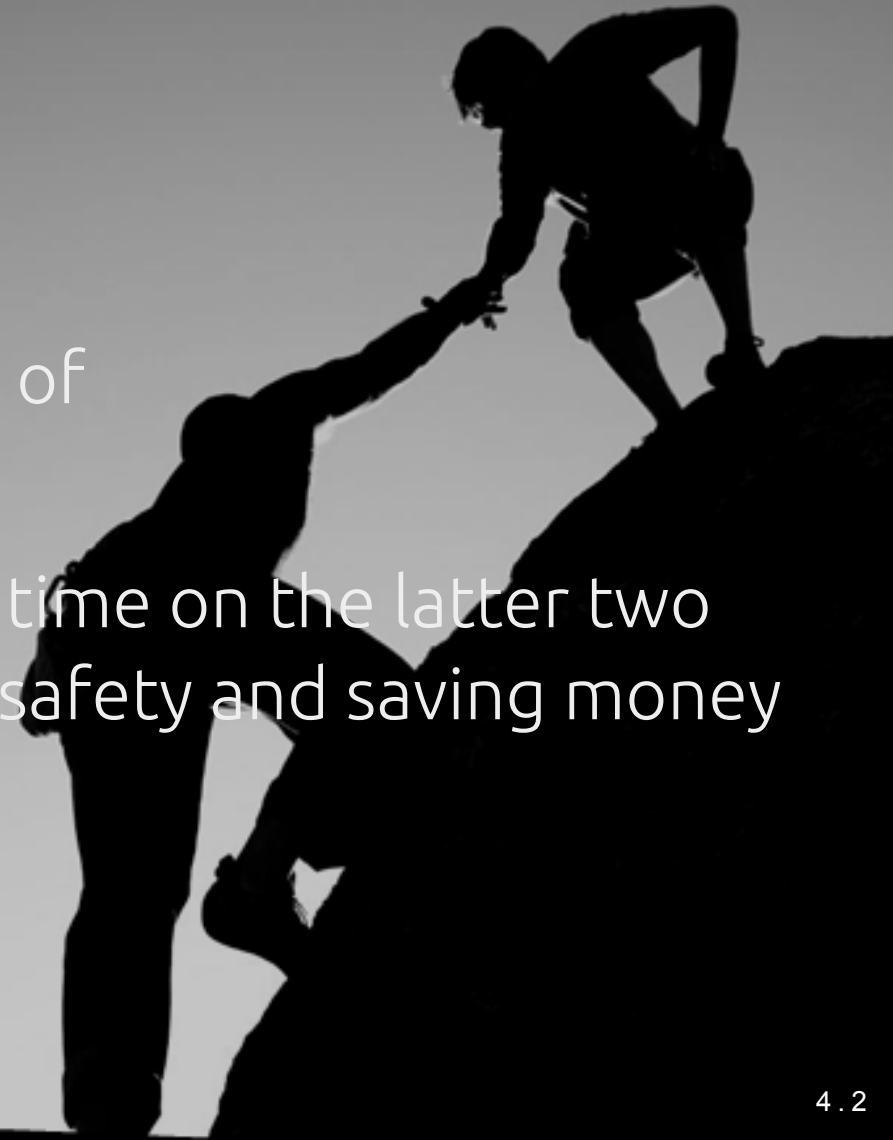
What ways do IT functions support the business



3 WAYS

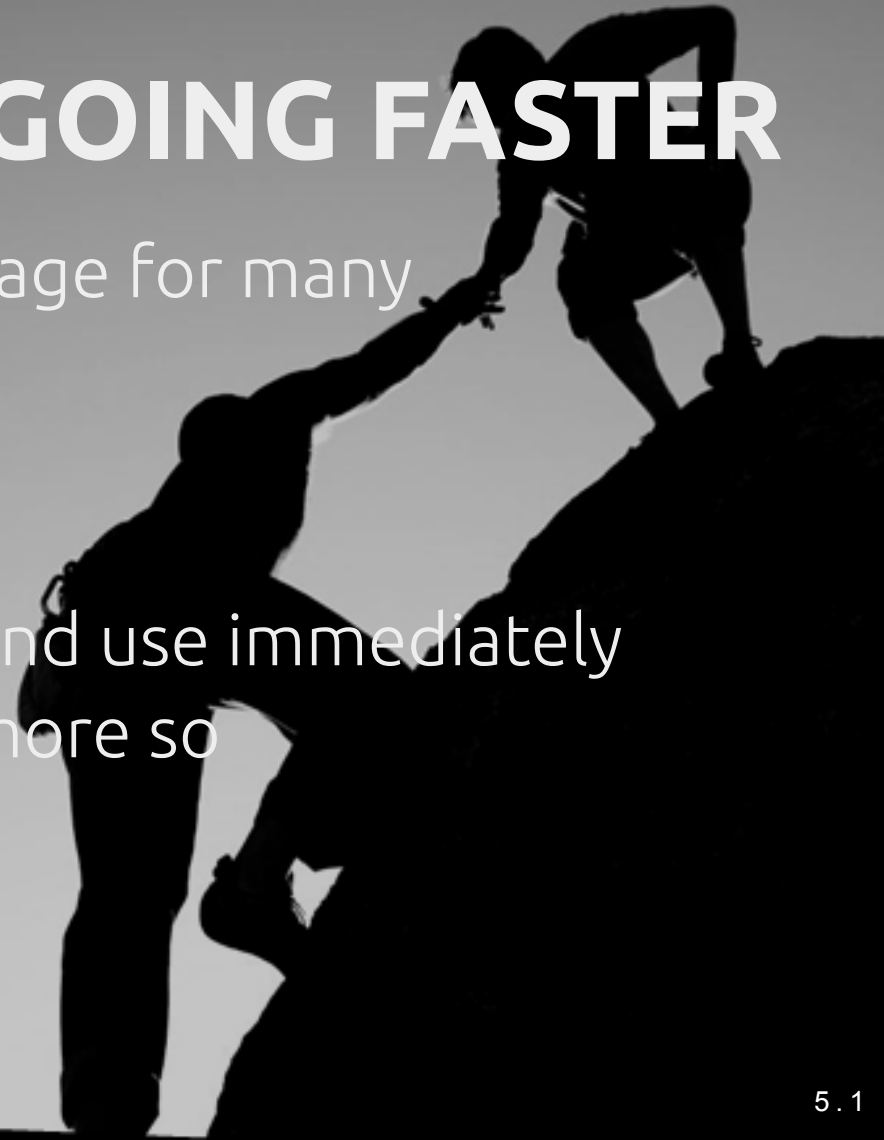
- Help make \$
- Save \$
- Prevent loss of \$

The problem is it spends 90% of its time on the latter two bullets. Traditional IT is focused on safety and saving money on scarce IT resources



CLOUD IT IS ABOUT GOING FASTER

- Faster is a competitive advantage for many business
- Ability to pivot
- Flexibility to experiment
- BUs can buy what they need and use immediately
- Still can be just as safe if not more so



CLOUD IS *NOT* A TECHNOLOGY

Well, not entirely anyway. It's also very much about people and process. It is a different consumption model for IT resources. It is much more aligned with applications than traditional IT which may not have deep awareness of business apps running on infrastructure



CLOUD ECONOMICS ARE DIFFERENT

- Rent vs buy for public
- Abundant resources vs limited
- Does not reward traditional it app architectures
- Can be hard/pricy to move data out of cloud or across vendors



CLOUD APP ARCHITECTURES ARE DIFFERENT

- Apps are stateless
- Distributed computing model
- Databases are "eventually consistent"
- There are different database types

<https://12factor.net/>

IT'S ALL SO DIFFERENT, BUT...

- Rule 11

(11) Every old idea will be proposed again with a different name and a different presentation, regardless of whether it works.

(11a) (corollary). See rule 6a.Quote rule 11 rfc 1925

- Corollary 6a

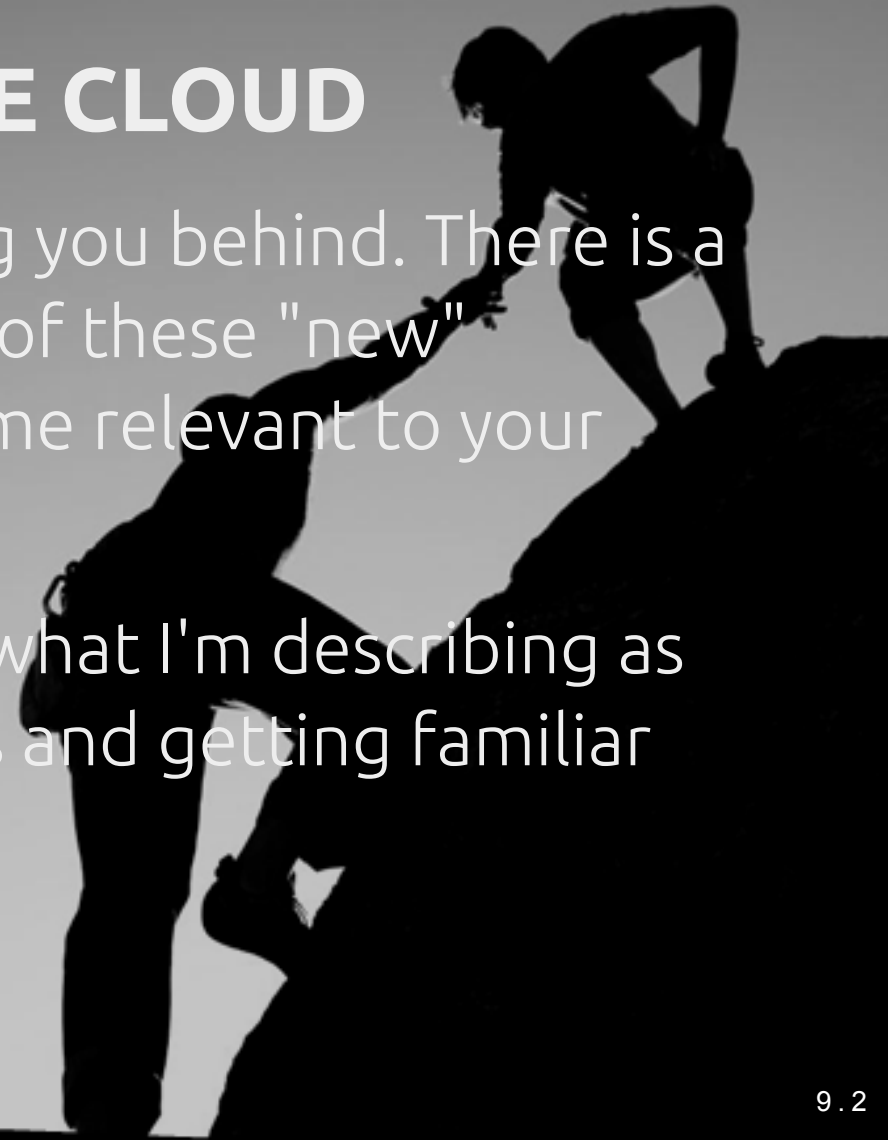
(6a) (corollary). It is always possible to add another level of indirection.

<https://tools.ietf.org/html/rfc1925> (published 4/1/1996)

DON'T FEAR THE CLOUD

The technology world is **not** leaving you behind. There is a very high rate of change and some of these "new" technologies may or may not become relevant to your career and your business.

So you should be running towards what I'm describing as Cloud IT technologies and methods and getting familiar with them now.



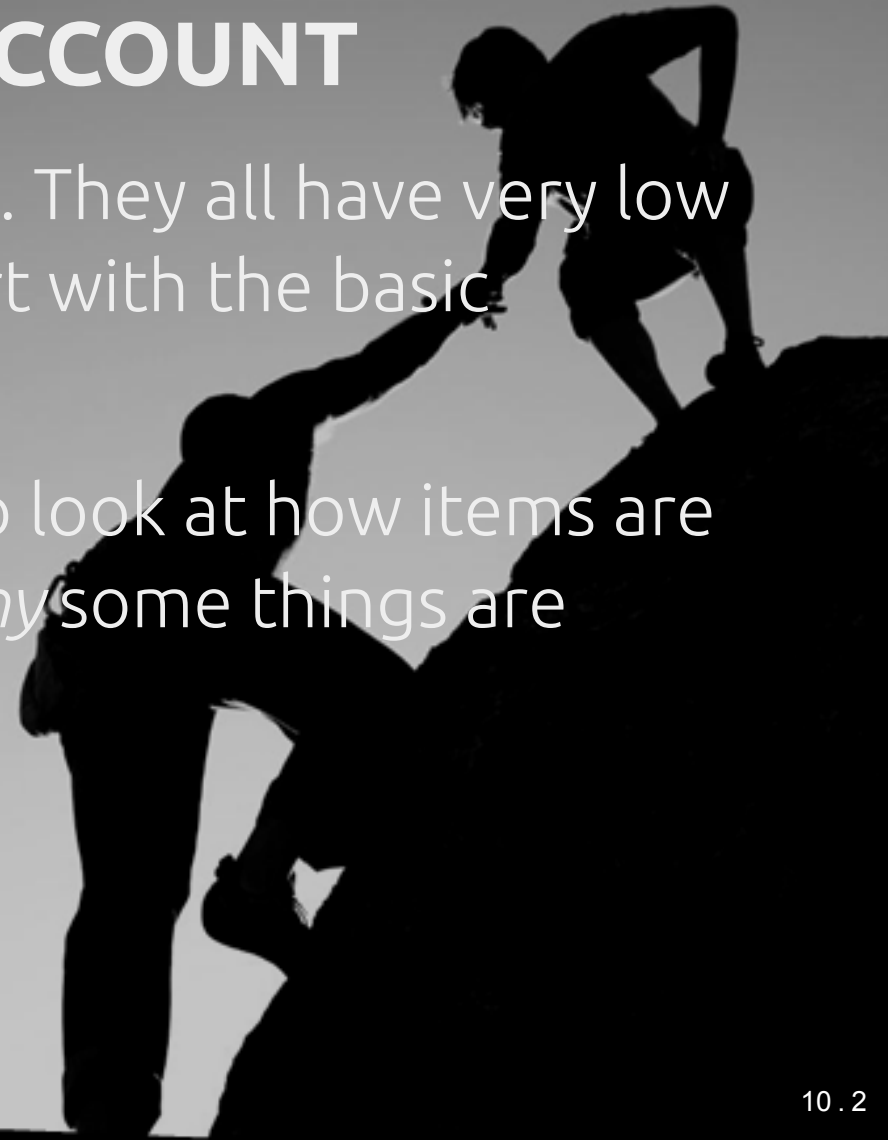
PRACTICAL STEPS FOR THE IT PRACTITIONER

What should the IT practitioner start doing to prepare for a transition to Cloud IT?

GET A CLOUD ACCOUNT

Get an AWS, Azure, or GCP account. They all have very low cost and/or free tiers of usage. Start with the basic infrastructure elements.

When you get your first bill, start to look at how items are charge and begin to understand *why* some things are charged more than others.



LEARN LINUX

Cloud native and Linux go hand in hand. it's time now to start focusing your attention on Linux skills.



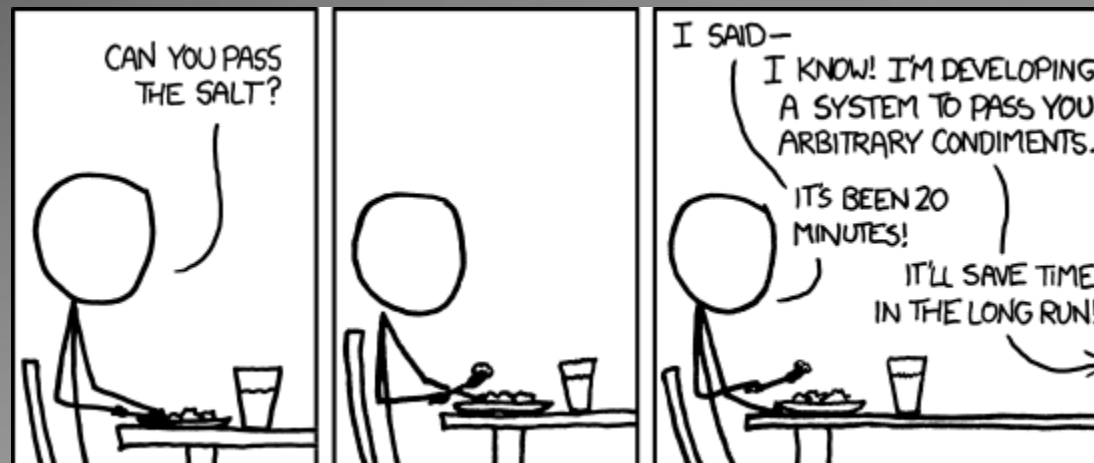
LEARN GIT

Essential skills today for the practitioner. Learn `git` workflows and how to collaborate with others. Understand the value of cheap branching and simultaneous work with multiple teammates.

There are numerous web based resources. Reach out to me and I'll point you to some.



LEARN AUTOMATION TOOLS



The investment may take longer than brute force initially
but you're playing a long game

LEARN AUTOMATION TOOLS

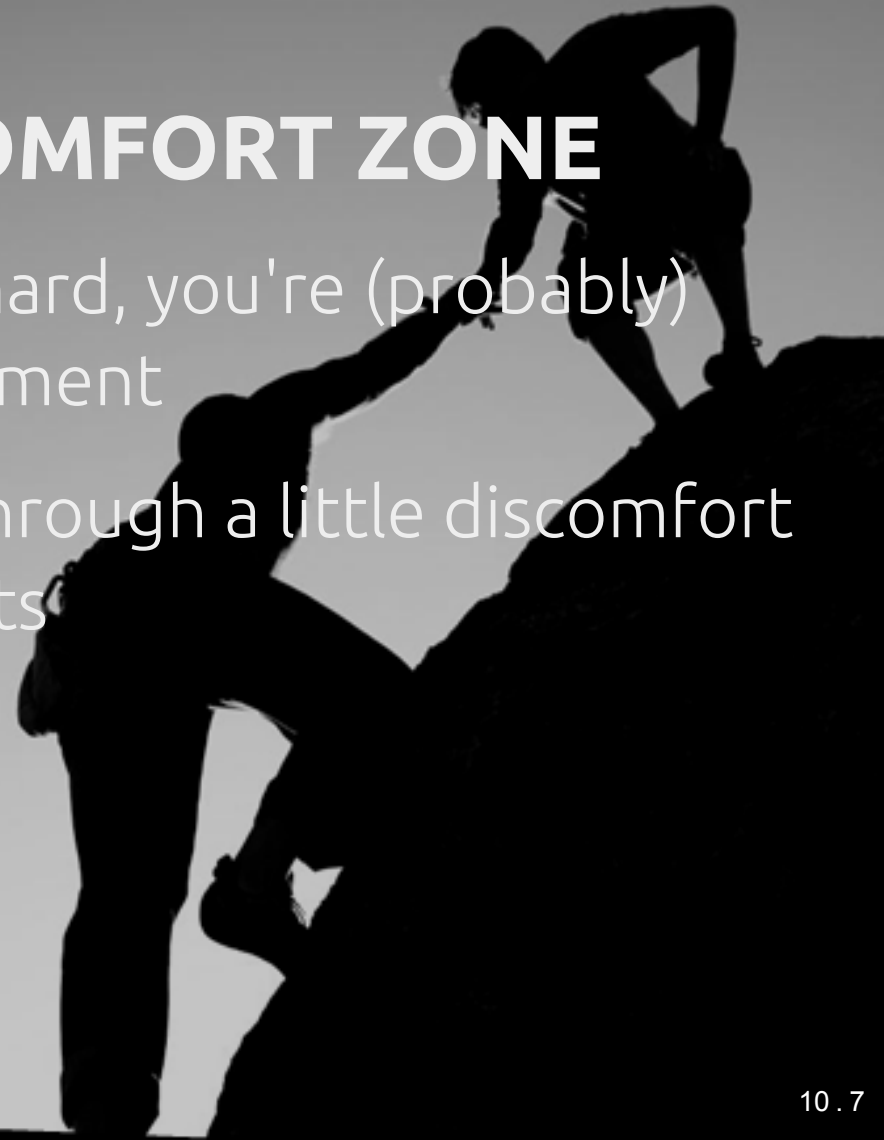
- Chef
- Puppet
- Ansible
- Salt



GET OUT OF YOUR COMFORT ZONE

If you feel out of depth and this is hard, you're (probably) doing it right. Make the time investment

Just like a workout, need to push through a little discomfort to get results



WHAT SHOULD AN IT LEADER DO?

What steps can an IT leader take to prepare for Cloud IT



TALK TO THE BUSINESS

Get IT and business leaderstalking. Understand what they want out of it and how they use it. If they use cloud find out what for and why.

If the answer is that IT can't respond to needs fast enough so they are going around IT, that's an important signal.



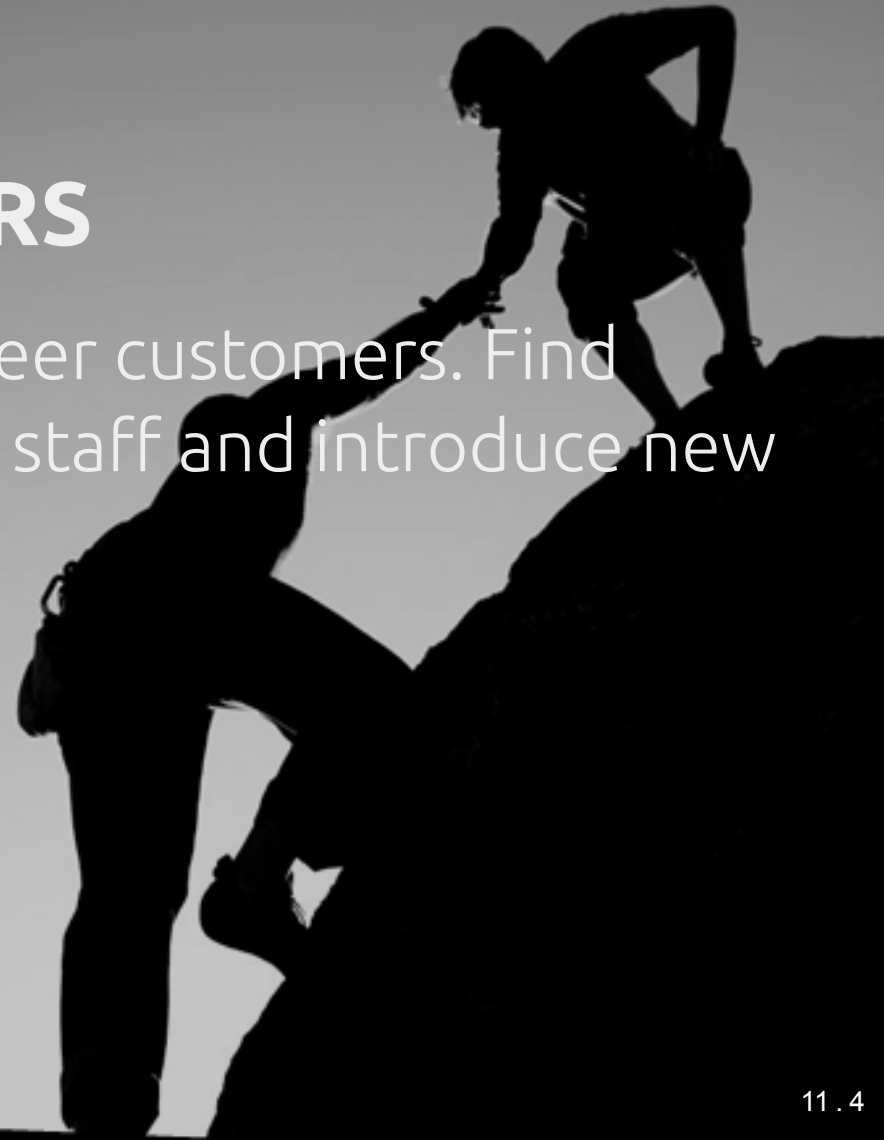
FOSTER INNOVATION

- Give your IT team room to learn and change
- Encourage education
- Recognize that processes may have to change
- And incentives
- Make better risk calculations



FIND PEERS

Get out into the community. Find peer customers. Find trusted advisors(like asg) to extend staff and introduce new modes of operating



FIND TRUSTED ADVISORS

Talk to your technology partners. Ask them probing questions. What are they asking you? How can they help you make start this journey



THEMES TO LISTEN FOR

- Faster
- Automated
- Simplified ops
- Self
provisioning
- Visibility
- Multi-tenant



ASG CAN HELP

With our Application Mapping Service and Cloud Roadmap Service



ASG AppMap Services Sizing Options

AppMap Complete

Holistic Map of All Services, from Business Objectives to User Services and Complete Infrastructure map

Compute, Network and Storage Correlated to Applications

Risk review of all Services and Application Models documented for Complete CMDB

AppMap Hi-Scan

Scan of Application Services utilizing network and servers and trending

Application Components and Dependencies Discovered and Mapped

Risk review of detected Services and Application Models documented

AppMap Single

Discovery and Mapping of Single Application Service

Application Components and Dependencies Discovered and Mapped for single service across Infrastructure Tiers

Risk review of detected Services, Application Support Models documented and Roadmap Developed

Application Mapping is an absolute requirement, ASG understands **you need options when attacking the problem**

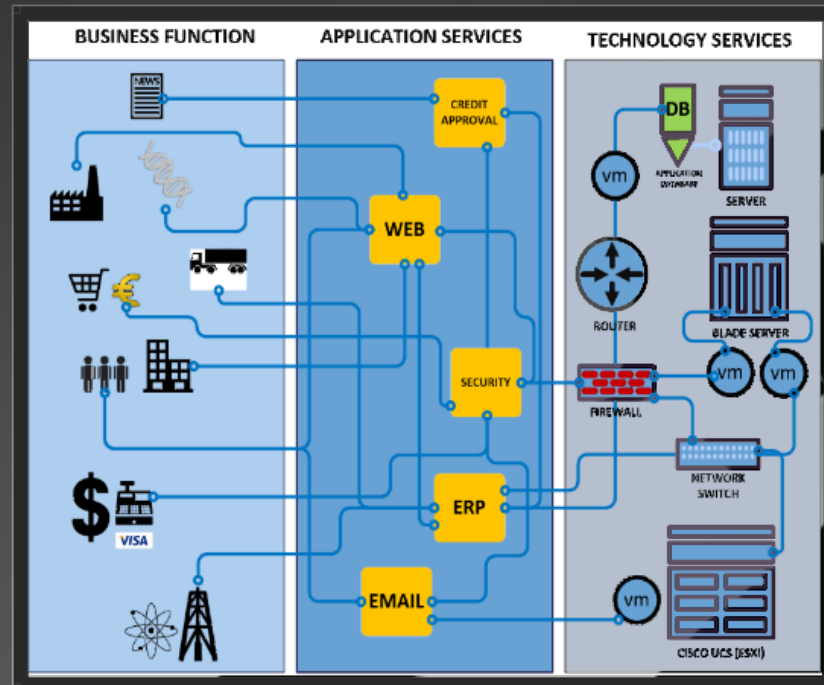
ASG provides 3 Levels of AppMap Services from basic single application documentation to complete application services discovery and Enterprise CMDB population

AppMap Complexity Resolved

CONSULTING SERVICES
ADVANCED SYSTEMS GROUP



APM & NPM Tools



AppMap

ASG can map the paths from users to services to the data that drives them and show the ultimate business value

AppMap Deliverables

CONSULTING SERVICES
ADVANCED SYSTEMS GROUP
cs.virtual.com

Complete Business Services Model

Logical, Virtual and Physical inventory of
Business Applications in your enterprise

Intelligence on Application Services
dependencies

Inventory of Servers, Storage and Data

Verification and map of systems and Networks
that support data Services

Current Resource usage by Service

AppMap is: Intelligent network mapping and application service topology discovery

ASG AND TINTRI

ASG partners with Tintri. Tintri's VM-aware storage is an example of a product that provides many of the attributes to ready enterprise customers to being moving to cloud-like IT.

How?

THANK YOU

Questions?

